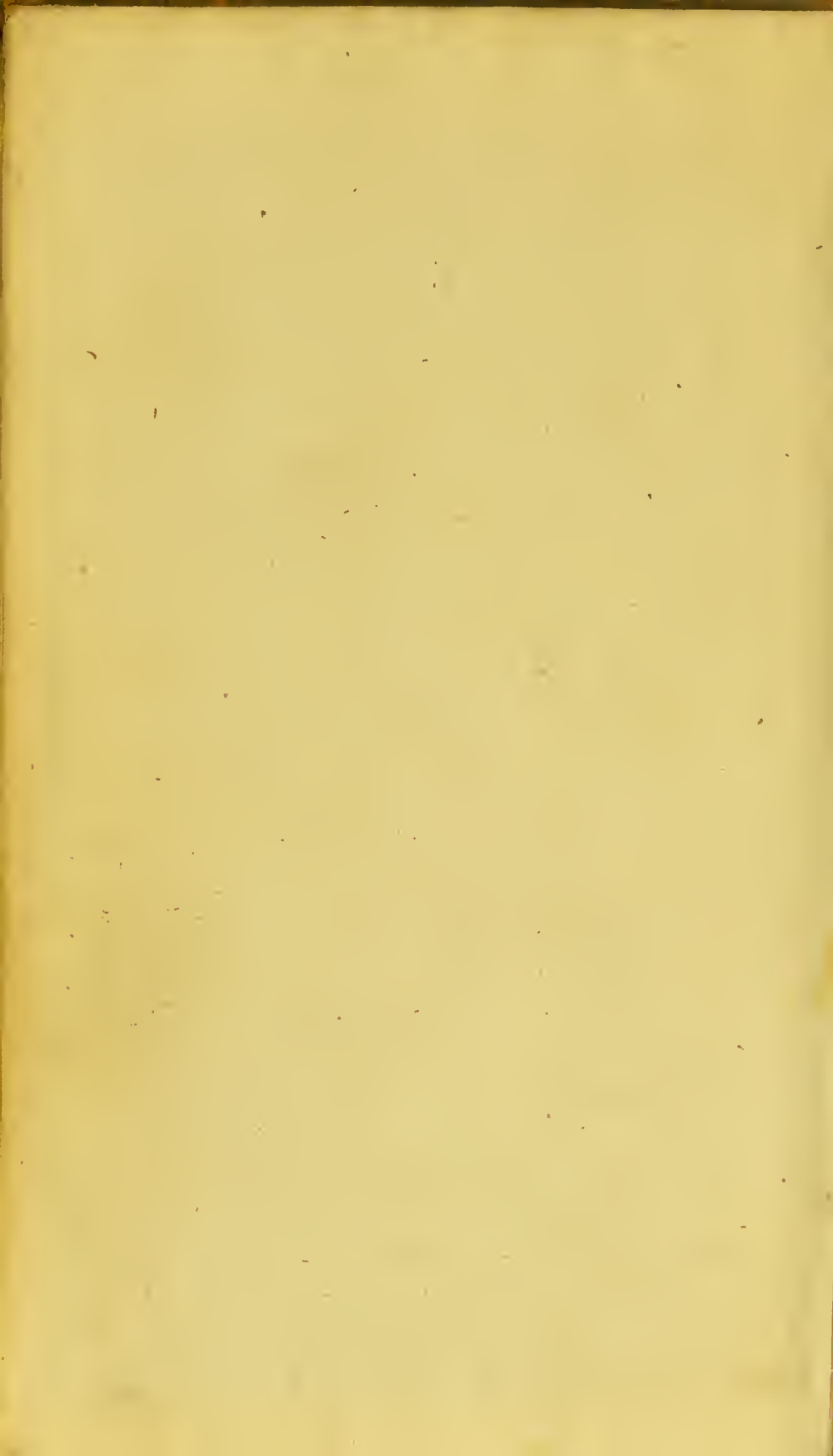


38631/A

NEW



E. Neil

Ballyshannon



MEDICINAL, ECONOMICAL, AND DOMESTIC

HERBAL:

CONTAINING A FAMILIAR AND ACCURATE DESCRIPTION OF

UPWARDS OF SIX HUNDRED

British Herbs, Shrubs, Trees, &c.

TOGETHER WITH

SOME OF THE MOST ESTEEMED AND USEFUL

EXOTIC PLANTS,

*Note generally cultivated, or otherwise made use of in the
United Kingdom ; arranged in alphabetical order :*

IN WHICH IS COPIOUSLY DISPLAYED,

The most recent and practical method of procuring and applying the peculiar properties of each species of plants to

VARIOUS USEFUL PURPOSES IN

DOMESTIC ECONOMY, PHYSIC,

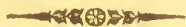
AND THE ARTS OF

Dyeing, Staining, &c &c.

TO WHICH IS ADDED,

A GENERAL INDEX OF REFERENCE

To the various Articles dispersed through the Work.



*The whole compiled and selected from the works of LINNÆUS,
BECHSTEIN, WITHERING, DAMBOURNEY,
BARTHOLIET, &c. &c.*

HE causeth the Grass to grow for the Cattle, and Herb
for the service of Man: Ps. CIV, 14.

BLACKBURN:

PRINTED BY R. PARKER, BOOKSELLER, STATIONER, & BINDER.

1808.



PREFACE.

Notwithstanding the great variety of persons to which the following sheets may become generally useful and instructive, yet it may be necessary to point out more particularly such persons as are more peculiarly interested in a work of this nature, and to whom it is intended to convey such information, as may be of lasting benefit and real utility.

The first class of persons who will find it their interest to consult this Herbat, are Farmers and Land-owners in general. And it is here presumed that the judicious information relating to all the varieties of grain, their most successful plan of cultivation, and every other useful hint preparative thereto, will not be found unworthy their most studious attention and regard. In addition to the above there will be found practical observations on the British Grasses, the most approved kinds for meadow and pasture lands, together with a great variety of useful remarks on the cultivation of every useful vegetable root, which cannot fail to render the work both desirable and profitable.

The second sort of persons which cannot fail to improve themselves by a reference to this volume, are Gardeners. Nursery-planters, and men of that description, who perhaps may find such information in the above branches, as hath been in vain looked for in more expensive works of the kind.

The last, but not the least class of persons that

the following work claims attention from, and to whom it is earnestly recommended, are such persons as are deficient in the knowledge of the real physical nature, of the various Herbs, Plants &c. and likewise of the manner of extracting Dyes, Stains, and other curious and useful processes, that may be resorted to with equal advantage, by the Domestic Housekeeper, as well as the more curious searcher after such experiments, without being subject to disappointment; as the different Facts relative to these heads, are not aserted on the extravagancies of fancy, or the uncertanties of theory, but have generally been put to the test of experience.

There is added a general Index of reference, to the various facts, experiments, and processes dispersed through the work; which will be found an useful appendage, and will much facilitate its consultation.

P. S. *We would beg leave to observe for the benefit of such persons who may have purchased This Work detached from Dr. NEWTON's new collection of plates, (which are intended to accompany it, and to which a reference is sometimes made,) that they may possibly find some difficulty in discriminating the various Herbs, Plants, &c. whereas the purchase of these plates would in a great measure remove the difficulty above alluded to; it containing above Four Thousand figures of plants, Price 14s. Boards, and may be had of R. PARKER, Blackburn, or LACKINGTON and Co. London.*



A

NEW

MEDICINAL HERBAL.

ADDER's TONGUE.—This small plant hath but one *leaf*, which grows with the stalk about four inches above ground, of an oval shape and a fine bright green colour; it is thick and soft, and without ribs or veins. The *stalk*, which supports the leaf, rises from a root composed of small strings or fibres, and seldom grows above four inches high. The spike of seeds reaches nearly the same height above it, and the tongue or seed vessel is notched on each side. The whole plant lies buried among the grass.

Time of gathering is in April and May, as it dies soon after that time, and is no more seen till the ensuing spring.

Medicinal Virtues.—It is a cooling herb; an ointment is made from it which is generally allowed to be useful for wounds, and other outward inflammations. To form this ointment the leaves are chopped in pieces, four pounds are put into three pounds of suet, and a pint of sweet oil, melted together till the herb leaves are a little crisped, the ointment is then strained off, and ready for use. Some give the juice of the plant, or the powder of the dried leaves, for inward wounds and bleedings; and an infusion of the plant is said to be useful for inflamed or watery eyes.

AGRIMONY, (COMMON.)—Is an indigenous plant, which grows on hedge banks and by road sides, it grows from one to two feet high, the leaves are winged, hairy, of a pale green and notched or indented round the edges: the flowers are yellow and small, growing from the stalk which is single, round, and strong; the seed vessels which succeed the flowers are rough and will adhere to cloths; &c.

Time of gathering and flowering is in July and August, and the seeds are ripe shortly after.

Medicinal Virtues.—The leaves of this herb are said to strengthen the tone of the viscera, or bowels; (a decoction being made of them with wine) also in scorbutic and other disorders arising from weakness and debility.—Digested in *whisky*, Agrimony affords

a diet-drink grateful to the palate and stomach, accompanied with an aromatic flavour. The leaves may be used fresh or dry, and are of service in the diabetes and incontinence of urine. The leaves and stalks together with the closed flowers, afford a dark yellow decoction, which, when previously impregnated with a diluted solution of Bismuth, imparts a beautiful and permanent gold colour to animal wool. The blossoms have also been occasionally employed by Tanners, for curing soft and delicate skins.—*Willich's Domestic Encyclopædia*.

AGRIMONY, HEMP.—Or *water agrimony*, has a root which is composed of long slender strings, or fibres; the stalk grows about two feet high of a dark purple colour; it hath many branches growing round the stalk at certain distances from each other; the leaves are winged and indented round the edges; the flowers grow on the top of the branches, are of a brown yellow colour, spotted with black; the seeds are long, and stick to woollen cloth, &c.

Place of growth. It is a native plant of England, and grows chiefly on the banks of rivers and ditches, about ponds and running waters.

Time of gathering, is when it flowers in July and August.

Medicinal Properties and Virtues.—This plant much resembles the common Agrimony; its leaves are also said to be very efficacious in the dropsy, jaundice, and similar disorders, likewise in the scurvy, foul ulcers, and swellings of the feet; the root is said to be a powerful laxative and cleanseth the body of foul and sharp humors, which are the cause of scabs and eruptions on the skin: *In dying*, the leaves with the addition of logwood, boiled with a proper solution of green Vitriol, strike a good black colour. *M. Dambourney* informs us that he has obtained a *yellow dye*, by making a decoction of the whole plant.—*Dom. Enc.*

BLACK ALDER BUSH.—The bark of this bush or tree is of a dark black colour, with small white specks upon it, but the innermost bark yellow, which being chewed will turn the spittle a bright yellow likewise; the leaves are somewhat long and resemble those of the common Eller or Dogberry-tree, but of a darker green: the flowers are many and white, rising in spikes with the leaves from the joints of the branches, from which flowers come the small round berries, and are black when thoroughly ripe, and of somewhat rough but pleasant taste.

Place of growth. It is a very common shrub in the lower parts of Lancashire, and in most parts of England, and grows near brook sides, and in hedge rows.

Time of flowering is in April and May, the berries are ripe in September.

Medicinal Properties, &c.—A decoction made with Vinegar of the innermost bark, is said to cure the itch, cleanse the body of

scabs, &c. The leaves are said also to increase the milk of cattle, when eaten in some quantity.

ALEHOOF.—Or *Ground-Ivy*, is commonly found in hedges in nearly all parts of England, and is too well known to need a description.

Medicinal Virtues.—A decoction made of this herb by way of tea, and drank in the morning, in the spring time, is of great use to those that have received inward bruises, or ulcerated lungs; it relieveth griping pains, windy and other choleric complaints of the stomach; it helps the jaundice and other obstructions; creates an appetite (after having failed) if persisted in for some time.

ALEXANDER.—It is common in gardens, where it is generally sown, has a large thick root composed of a sort of bulb, with strong tendons growing from it, the stem rises with somewhat large and indented leaves, the flowers grow in tufts on the top of the stalk, and may be looked for in June, or July, and the seed the following month.

Medicinal Virtues.—Culpepper says it is an herb friendly to nature, in opening obstructions of the liver and spleen, provoketh the menses, and urine, and helpeth the stranguary.

ALKANET, EVERGREEN.—Or *Bugloss*, there are eight species of this plant, but only one is known to grow in Britain; it hath a great thick root, of a redish colour; with many long, narrow, hairy, green leaves, lying on the ground; the stalks are compassed round with thick leaves, which are much smaller than those that lie on the ground; the flowers are hollow, small, and of a red colour.

Time and Place. It flowers during the whole summer; this species is to be found in some gardens, whence it is called the greater garden Bugloss; Culpepper says a species of it is to be found in Kent, Devonshire and Cornwall.

Medicinal Virtues.—The flowers of the garden Bugloss, have obtained the name of *cordial flowers*, as they moderately cool and soften the palate and stomach. They are much visited by bees: The young leaves afford a good substitute for early garden vegetables, and the whole plant is an excellent fodder for cattle. If the juice of the fresh flowers be boiled with a solution of allum, it yields a green colour, which is used for dying.

ALL-HEAL, CLOWN'S.—Or *Marsh Woundwort*, is an indigenous plant, the root is long and thick and very full of juice of a hot biting taste, the leaves are large and winged like *Ash-tree* leaves, of a fresh green colour, but somewhat hairy; from amongst the leaves riseth up the stalk, green, round and strong, which groweth five or six feet high, with joints and leaves proceeding from them; the flowers which are yellow and small, grow near the top of the stem or stalk.

Place of growth, is commonly on the sides of rivers and lakes, in low, moist grounds and corn fields.

Medicinal Virtues, &c.—This plant has a fetid smell and bitter taste. Formerly it was employed in medicine as a vulnerary; but at present we shall confine our account to its economical purposes. *Linnaeus* says that the creeping roots of this plant are sought after with great avidity by hogs; and that they would well repay the trouble in collecting them to convert into flour for the purpose of making bread;—we feel it our duty to take particular notice of this observation, as the same if timely resorted to, might in some measure tend to relieve the sufferings of the poor, and in the times of dearth or scarcity.

AMARA DULCIS.—Some call it *Mortal, Bitter-sweet, Woody Nightshade* and *Fellen Wort*. It grows up with woody stalks five or six feet high, the leaves fall off at the approach of winter, and spring from the same stalk at spring; it hath a whiteish bark with a pith in the inside of the branch: The largest branch shooteth many small ones, with clasps laying hold of what is near them; the leaves are many, long and broad, and pointed at the ends, of a pale green colour: The flowers are of the colour of violets, and stand together in bunches, the berries are green when young, but of a very red colour when ripe, with a mixture of a bitter and sweetish taste.

Place of growth, is common in different parts of England, especially in moist and shady places.

Time, the leaves shoot out about the latter end of March, flowereth in July, the seeds are ripe in a month after.

Medicinal Virtues.—Culpepper gives the following receipt: Take a pound of the wood and leaves, bruise the wood, then put them together in a vessel, and three pints of white wine, set it over a gentle fire for twelve hours, strain it off, and you have an excellent drink to open obstructions of the liver and spleen, helpeth difficulty of breathing, bruises and falls, of use in the yellow and black jaundice, and dropsy; it purgeth gently, a gill may be drank each morning, before breakfast.

AMARANTHUS.—Or *Velvet Flower*, is a garden plant and groweth about a foot high, smooth, streaked and somewhat redish towards the top, where it is divided into very small branches, growing from amongst long broad leaves of a redish green colour, and a glossy smooth surface; the flowers grow in beautiful tufts of a redish colour in general.

They Flower from August till the frost cuts them down.

Medicinal Virtues.—Culpepper says that the flowers dried and beat to a powder, stoppeth the overflowing of the menses and other fluxes of the blood, either at the nose or a wound. There is another kind that beareth a white flower, which the same author affirms to be a singular remedy for the venereal disease.

ANEMONE.—Or *Wind Flower*, (see Table 69, Newton's Herbal) is a plant chiefly distinguished on account of its beautiful flowers. *Linnaeus* names twenty-one species; the following four are indigenous;

ANEMONE PULSATILLA, (lat.) or *Pasque Flower*, so called because it flowereth about Easter, when it adorns some of our dry chalky-hills. In April it bears beautiful bell-shaped flowers, of a purple or redish colour.

Medicinal Virtues.—It is asserted that its flowers are of great efficacy in curing inveterate ulcers, both in man and cattle: both the flowers and leaves of this species are employed by foreign dyers for green colours of various shades. From the expressed juice of the leaves a green ink may be prepared; and if the florets only be used, it will be of a lighter shade; but from the whole flower, the colour will be much deeper. *Dambourney* says that animal wool previously immersed in a solution of Bismuth, acquires a pleasing light *nigogne* colour, by immersion in it.

WOOD ANEMONE, another wild sort, bearing only one white or sometimes purple flower on a plant.

Medicinal Virtues.—This plant may be usefully employed as a substitute for Spanish Flies; for it produces not only a more speedy, but less painful effect. Its juice is so extremely acrid, that it has been justly suspected to occasion the dysentery among cattle: and inflammation, with a discharge of bloody urine, in sheep. Hence the necessity of guarding these animals from the effect of this plant.

YELLOW WOOD-ANEMONE, which grows wild near King's Langley, Herts, and Wrotham in Kent: It generally produces, in April, two flowers on one stalk, with rounder leaves than the preceding species; it is a poisonous plant, the inhabitants of Kamtschatka use its leaves for staining their arrows; which, unless the wound be immediately cleansed, are said to prove inevitably fatal. They destroy the whales that frequent their coast by this incans.

BLUE MOUNTAIN-ANEMONE, which grows wild in Wimbledon woods, likewise near Harrow; Luton-hoe, Bedfordshire.

Its *Medicinal uses* are, though inferior, similar to those before described.—*Dom. Enc.*

ANGELICA.—Is a plant of which there are seven species; though two only may be ranked among the indigenous: viz.

THE GARDEN ANGELICA, is a large umbelliferous plant, scarcely a native of Britain; for, according to Dr. *Withering*, the only place where it grows wild, and without culture, is, Broadmoor, about seven miles N. W. from Birmingham. The stalk of this magnificent plant, when properly cultivated in a moist soil, rises to the height of seven or eight feet; its flowers are of a greenish white colour, or sometimes yellow, growing in clus-

ters on the end of the branches ; The leaves are pointed at the end, and somewhat large.

Medicinal Virtues.—Every part of this useful vegetable, partake of the aromatic properties, it being one of the most spicy plants of European growth. Its resinous root, and the seeds are chiefly esteemed in medicine ; and the former, when fresh, affords by distillation a strongly fragrant spirit, and an essential oil, in the proportion of a whole drachm and upwards, from one pound : A tincture made of one ounce digested in twelve ounces of proof spirits, yields, on evaporation, two drachms of a very pungent and spicy extract. This is generally preferred by the Medical College of Berlin ; a valuable member of which, the late Dr. *Gleditsch*, gives the following account of its effects : “ Fifteen grains of this extract, which are equal to one ounce, or two table spoonfuls, of the tincture, diluted with water, and taken three times or oftener in a day, prove a gentle stimulating medicine, well calculated to strengthen the solids, and especially serviceable for dispelling flatulency, removing pectoral complaints, and affording effectual relief in hysterics. The oily-spirituous and resinous part of it, tends to resolve viscid humours, while its gummy and balsamic constituents beneficially act on the fluids.” Being very mild in its operation, the Angelica deserves the preference to many other roots of this nature, and may therefore be usefully employed in flatulent cholics, obstructions of the breast, and uterus, malignant fevers, and the true scurvy, in doses of two drachms in substance, conveyed either in tea or mild wine. Externally it may be applied to scorbutic gums : and, when boiled in water, it affords a good gargle for swellings of the throat and fauces, as well as for cleansing ulcers. It may farther be used with advantage in a bruised state, as an ingredient in cataplasms and fomentations on the abdomen, to relieve painful distensions of the bowels, or to strengthen a weak and disordered stomach, if the patient at the same time pay proper attention to diet and regimen.—*Dom Enc.*

WILD ANGELICA, is a much smaller plant of a thinner and less succulent stem than the former.

Place of growth, is generally, in marshy woods and hedges, and the flowers which are white appear in June or July. (See Table 135, and 136, Dr. N. Herbal.

Medicinal Properties.—This species is somewhat inferior to the former, in its medicinal virtues : both kinds delight in a moist soil, the seeds should be sown immediately after they are fully ripe ; the plants should be transplanted when about six inches high. The root should be gathered in a dry season, and suspended in an airy room, upon threads, and guarded against the attacks of vermin.

Cattle are exceedingly fond of eating the fresh spring leaves of

this herb, which to them are a good cleansing and strengthening medicine. Bees extract from the flowers a balsamic honey; hence its growth should be encouraged and even artificially promoted, especially as it is one of those plants, which have lately been used with success, as a substitute for oak-bark, in tanning, and in preparing a kind of morocco from sheep, calf, and goat's skin. Lastly, *Dambourney* asserts, that, from the leaves of this species he produced a beautiful and permanent gold colour, in dying wool properly prepared by a solution of bismuth.—*D. Enc.*

ANISE.—Or *Pimpinella*, is an annual umbelliferous and aromatic plant, of which there are ten species, though three are scarcely indigenous. (See Table 139, Dr. N's. Herbal.) For descriptions, &c. see BURNET, and SAXIFRAGE.

APPLE-TREE.—It is supposed by Botanists to have originated from the *Crab-Apple* of the woods and hedges: It is too well known to need a description.

Medicinal Properties.—It deserves to be stated, that besides their aromatic qualities, they are wholesome and laxative when fully ripe. In diseases of the breast, such as catarrhs, asthmas, consumptions, &c. they are of considerable service to neutralize the acrimony, and attenuate the viscosity of the humours; for these beneficial purposes, they ought either to be roasted, stewed, or boiled. Apples should be gathered with the *hand* and carefully placed in baskets to keep, with a pail or two of water in the room with them, which will preserve the fruit from the effects of frost, in severe winter.

ARCHANGEL, RED.—It hath square stalks rather hairy, at the joints grow two dark green leaves, dented round the edges, and nearly round, but a little pointed, crumpled and hairy: towards the top grow the opening flowers of a pale red colour. The root is small and the whole plant hath a strong smell; it perisheth every year. *White and Yellow Archangel*, so named from the colour of the flowers, are nearly similar, (see the Icons Table 114, Dr. N's. Herbal.)

Place and Time, they grow very common, the *yellow* kind usually in wet ground and woods, nearly all over Britain.

Medicinal Uses.—Culpepper says, if the herb be bruised and laid on the rape of the neck it will stop bleeding at the nose or mouth; if mixed with salt, vinegar and hog's grease, will dissolve swellings arising from the king's evil; will cure green or old wounds, bruises and burns.

ARRACH, WILD and STINKING.—Or *Orrach*, it hath nearly round leaves, yet a little pointed, of a dusky colour, the flowers are in clusters set with the leaves, the seeds sow themselves from whence arise fresh plants yearly. It is generally found on dung-hills, and flowers in June, or July, and drops its seed soon after.

Medicinal Virtues.—A syrup made from the juice of this plant

with honey or sugar, is said by Culpepper to be of excellent use to regulate a woman's courses, cleanseth the womb, and greatly strengthens it, and helpeth barrenness.

ARROW-GRASS.—Is a plant of which there are three kinds, but two only are natives of Britain, viz. The *Marsh* and *Sea Arrow grass*, (see Tab. 7, Dr. N's. Herb.) the former is very often found in marshy grounds, and the latter near the sea coast, and in saline tracts. As they are eaten with avidity by sheep, for which they serve as an excellent and wholesome food, we presume strongly to recommend their culture. An additional motive for the propagation of the *arrow-grass*, may be suggested to the farmer and breeder of sheep; because it thrives extremely well in moist and swampy places, where few other vegetables would grow.

ARROW-HEAD, COMMON.—Is a neglected, though useful plant growing wild in many parts of England, on the banks of rivers and other marshy grounds, where scarcely any other plant will thrive. Its sharp pointed leaves resemble the head of an arrow: (see the *Water bulbed Grass*, Tab. 7. Dr. N's. Herb.) At the extremity of the root there is found a bulb, which grows in the solid clay, below the mud, for the sake of which, it is industriously cultivated both in *China* and *America*, while in this country, (of which it is a native,) it is entirely neglected. As it constitutes a considerable part of the *Chinese diet*, no reason can be alledged why it should not be resorted to in times of scarcity, when a few persons would gather, in some parts of the country, in a day, as many of those palatable roots, as would serve as a substitute for bread in a whole family for a fortnight. Even in its raw and unprepared state, it affords a proper and wholesome food for horses, goats, and hogs. The root is of so *mealy* a nature as to be easily converted into *starch*, or *flour*, by macerating or crushing them when thoroughly dry.—*Domestic Encyclopædia*.

ARSSMART.—Or *Water-pepper*, the mild kind hath broad leaves set at the red joints of the stalks, with blackish marks on them, the root is long and stringy.

Place and Time, it grows in watery places, ditches, &c. and flowereth in June, and the seed is ripe in August.

Medicinal Virtues.—It is of a cooling and drying nature. Culpepper says, a piece of the root, or the seeds bruised and applyed to an aching tooth, gives relief immediately, by taking away the pain; he further adds, that the juice being dropped into the ear, destroyeth the worms therein; is good against imposthumes, and inflammations at the beginning, and to heal green wounds.

ARTICHOKE, JERUSALEM.—Has been long cultivated in gardens, as an esculent vegetable. This root is much valued for feeding hogs and store pigs. When these roots are given to horses, they should be washed, cut and ground in an apple-milk:

the proportion given each time is eight pounds, with two ounces of salt, and a bite of hay, thrice daily. The culture is the same as potatoes.

ASARABACCA.—Is an English herb, though very rare, growing in the northern woody parts of this Island; *Ray* observes that he found it in some woods in Lancashire. It hath many heads that spring from the root, from whence also proceed the leaves which are smooth and on foot stalks, of a dark green colour on the surface, but of a pale yellow green beneath; from amongst the leaves ariseth the flowers, which are bell-shaped and of a dusky purple colour. The leaves shoot forth in the Spring, and the flowers in the beginning of May.

Medicinal Virtues.—As a medicine, the different properties of this plant, render it an object of attention; hence *Linnaeus* proposed it as a substitute for *Ipecacuanha*; and, according to *Dr. Cullen*, “the root, dried only so much as to be powdered, proves in a moderate dose a gentle emetic.” But as the internal use of the asarabacca is precarious, the London College have justly rejected the ROOT, and directed the LEAVES only to be employed as an *errhine*, or sneezing powder, with the addition of one half of dried lavender flowers. Thus carefully prepared, and snuffed in small doses of a few grains, several successive evenings, *Dr. Woodville* says, “it produces a pretty large watery discharge, which sometimes continues several days together; and by which, head-ach, tooth-ach, ophthalmia or inflammation of the eyes, as well as some paralytic and soporific complaints have been effectually relieved.” That such is the effect of this powder, we have frequently observed by experience, though there is reason to doubt whether its action extends to palsy, as it more particularly affects the salival glands, which is obvious from the copious spitting it generally occasions, after being used for a few evenings.

In farriery, the powdered root of this plant is given mixed with bran, to horses troubled with the *farcy*, or leprosy, in doses from one to two ounces; as likewise for worms in horses or sheep.

Dyers may also usefully employ the fresh leaves or roots of the asarabacca, for producing first an apple-green, and by boiling them still longer, a light-brown colour, on wool prepared with bismuth,—these experiments are related by *Dambourney*.

ASH-TREE.—Ash, is a genus of which there are six species, of these, the most useful is the common indigenous Ash, which is well known to every rural economist.

Useful Properties.—The ashes of the wood make very good pot-ash; and the bark is employed in tanning calf-skins. The leaves have been used for the adulteration of TEA. Poor people formerly derived considerable advantage by collecting them; but we understand that this practice has been prohibited, as it tends to diminish the revenue. We may however venture to say, that

the leaves of the Ash are as wholesome as those of the Tea-tree; the latter, like most other ever-greens, is of a doubtful, if not pernicious quality, independently of the circumstance, that our teas may partake of the fraudulent practices of the Chinese, to which most of their goods are liable.

In rural economy, it has been asserted, that the leaves of the Ash impart a bad taste to milk; and it is therefore seldom suffered to grow in dairy farms. Those leaves, however, are eaten with avidity by horses, sheep, and goats, for which animals they are considered as good fodder.

The bark of the common ash is used in dyeing. It is placed for some time in water, with a solution of vitriol, by which the water acquires a black colour. The Morlachians boil the bark for the space of eight days, with the dross of iron, and, when the solution has grown cold, they use it for dyeing black. With cold water, the bark makes a lixivium of a variegated colour, which displays azure and greenish shades; but *boiled* water is not proper, as it renders the dye thick and brown. *Warm* water is preferable, as this produces a blueish lixivium, which imparts a fine blue colour to yarn, particularly if it has been previously dyed yellow. According to *Dambourney*, the fresh shavings of ash, give to wool, prepared with bismuth, the true and permanent *vigogne* colour.—*Dom. Enc.*

ASPARAGUS.—Or *Sparrow-Grass*, is an esculent plant, which is reared with great attention, on account of its delicate flavour.

Medicinal Virtues.—Culpepper says, the decoction of the roots in white wine, and the back and belly being bathed therein, has been found effectual against pains in the reins and bladder, the cholic, and other pains of the lower belly; and also against stiff and benumbed sinews, occasioned by cramp and convulsions.

It promotes the appetite, and is very salutary food for those whose urinary passages are obstructed.—*Dom. Enc.*

ASPHODEL.—Or *King's Spear*, is an exotic plant of which there are five species, but one only, viz. the Lancashire *Asphodel* is a native of Britain. It thrives and grows in turfy marshes, and flowers in July and August.

Nature, &c.—The Lancashire *Asphodel* is supposed to be very noxious to sheep; for, when necessitated to feed on it from a poverty of pasture, they will indeed improve in flesh at first, yet they afterwards die with symptoms of a diseased liver. Horned cattle, however, eat it without any bad effect. (See Table 22, Dr. N's. Herbal.)

AVENS, COMMON.—Or *Herb Bennet*, hath dark green winged leaves rising from the root, divided into smaller, but the end of the main leaf terminates in three of the largest divisions. They are a little indented round the edges: from amongst the leaves,

rises the rough hairy stalk, about two feet high, on the top of which stand the small pale yellow flowers, consisting of five leaves; the root consists of small brownish fibres.

Place and Time. They grow wild in shady places, by paths ways and hedge sides; flowers in May and June, and they seed the month after.

Medicinal Virtues.—A decoction in wine of the root of this plant, Culpepper says, strengthens the stomach, and is good in the spring, to open obstructions of the liver, helpeth the windy cholic, and is a good preventative against the infection of the plague, or other infectious disorders.

It is added, by Dr. *Willch*, (*Domestic Encyclopædia*, Page 243,) that the root of the common Avens has lately been employed with singular efficacy in the cure of obstinate agues. A tincture made of it, in the proportion of four ounces of the root, digested with a quart of brandy, in a sand heat, and given to the quantity of half an ounce, or more, two, three, or four times, has seldom failed to cure Intermittents, where Peruvian bark had proved ineffectual. Others give it with equal success in decoction, powder, or electuary, in doses from one scruple to a drachm or more, several times a day—provided that the first passages be previously evacuated by proper laxatives. This root has also afforded an excellent remedy in several chronic disorders, as a general strengthener and astringent: indeed, the experiments made by *Buchhave* shew, that its antiseptic power is superior to that of the best foreign bark.

As an object of rural and domestic economy, this plant deserves some attention. Sheep are extremely fond of its herbage; which may likewise, when young, be used for culinary purposes, and especially in the form of salad. If the common avens-root be collected, split, and dried, a portion of it secured in a bag, and hung in a cask of beer, it is affirmed (in the *Transactions of the Swedish Academy*,) that this simple expedient will prevent it from turning sour.

In the useful arts, this root has likewise been employed in the process of tanning leather. *Dambourcy* informs us, that the stalks and leaves of the plant have been used with advantage for dyeing wool of a permanent *olive-brown* colour, when previously steeped in a solution of bismuth.—*Dom. Enc.*

BALM, COMMON.—Is an exotic plant, though common in our gardens, has a pleasant aromatic smell resembling that of the Lemon, it is too well known to need further description.

Medicinal Virtues.—This plant yields, by distillation, a small proportion of an essential oil, of a yellowish colour, and a very grateful smell. A few drops of this oil diluted in a glass of simple water; or strong infusions of the young shoots, drank as tea, and continued for several weeks, or months, have proved of ser-

vice to nervous and hypochondriacal patients, of a lax and debilitated habit.—Either of these liquid preparations, when slightly acidulated with lemon juice, acquire a fine reddish colour, and may be taken with advantage in dry, parching fevers, as well as in cases of distressing flatulency, attended with eructations, where the first passages have previously been opened.

BALSAMINE.—Or *Touch me not*, is one of the poisonous native plants, growing in moist and shady places, especially in several parts of Westmoreland, Lancashire, Yorkshire, and Wales; it is most abundant on the banks of cold brooks running through wood-lands, sheltered under willows and alder-trees. Its stalks are about eighteen inches high, and its yellow flowers appear in August.

The capsules of this plant, when touched by the hand, burst and throw out their seeds with velocity; whence it has received its name.

Nature, &c.—Balsamine seeds possess the deleterious property of producing violent purging, when swallowed inadvertently, especially by children; and inevitable death when taken to any extent. Dr. *Unzer* asserts, that the bread baked in an oven which had been heated with the dry stalks of this plant, poisoned and nearly destroyed a whole family.

In dyeing, the leaves and flowers of the balsamine, according to *M. Bechstein*, impart to wool a beautiful yellow colour.

BARLEY.—'Tis too well known to need describing.

Medicinal Properties.—Barley has, from the earliest ages, been considered as wholesome and nutritive food for man and cattle. In diseases of the kidneys, and breast, as well as in that state of the body where it is said to abound in acrimonious humours, decoctions made of this grain, sufficiently strong, and acidulated with vinegar and sugar, are eminently useful.

As a cooling and diluent beverage, barley-water is of essential service to febrile patients, and in all inflammatory cases, where preternatural heat and thirst prevail: but to promote its salutary effect, the grosser parts, which remain after decoction, ought not to be swallowed.

BASILL.—The ordinary Basill, is a tender plant, groweth up usually with one upright stalk diversly branching forth, with two leaves at each joint, rather broad and round, yet pointed at the end, and indented round the edges; the flowers are small and white, and stand at the top of the branches, after which follow the seed, which is black.

Place and Time, it groweth generally in gardens, where it is sown late, and flowers in the middle of Summer.

Medicinal Properties.—Culpepper affirms, that being applied to the bite of venomous creatures, the sting of wasps, hornets, &c. it speedily draws out the poison.

BAY-TREE, EVERGREEN.—It is a native of Italy, though found in our English gardens: grows with an upright trunk, branching out on every side. It may be propagated, either by layers, or by the berries. When the former are transplanted, in a dry season, they require to be constantly watered. To raise this tree from the berries, they ought to hang till about January, before they are gathered, and to be sown shortly afterwards, in a fine mould. They should be guarded from black frosts while young, by placing furze bushes between the drills. *Hanbury* asserts, that this species thrives exceedingly well on the hottest gravelly lands; and after having overcome the hardships of transplanting, it will grow in such situations remarkably fast, and attain a considerable size.

Medicinal Virtues.—The dark-green leaves of this tree afford, by distillation, a very useful oil, which is employed both in medicine, and as a culinary spice. The fragrant, but bitter berries, also yield an essential oil, and in a much greater proportion: it has sometimes been used with advantage in nervous and paralytic affections. With the foliage of this beautiful tree, which among the ancients was consecrated to Apollo, they crowned their poets and heroes.

BEANS.—Are too common to need describing.

Nature and Properties.—In general they are nutritive, but tend to produce flatulency. Hence they ought to be boiled in their fresh state, when they are less flatulent and more easily digested. The horse bean has been used as a substitute for coffee, which it much resembles in taste, though it does not contain more than half the quantity of oil.

For the various improved methods of cultivating Beans, and other useful observations, see Vol. I, Page 202, Willich's Domestic Encyclopædia.

BEAN, THE KIDNEY BEAN.—A description is needless, as they are so common in every garden.

Medicinal Virtues.—Culpepper says, that they are of easy digestion, tend to provoke urine, and helpeth shortness of breath.

BED-STRAW, LADIES.—It grows up with small brown and square stalks, three or four feet high, at the joints spring fine small leaves, at the top of the branches grow long tufts of yellow flowers close together consisting of four leaves each: the branches sometimes hang to the ground, where they take root and propagate much.

Place and Time, they grow in meadows and pasture lands, about hedges, flower in May, and seed in July and August.

Medicinal Virtues.—The leaves or flowers being bruised, and put into the nostrils, stoppeth bleeding. A decoction of the herb being drank, breaketh the stone, provokes urine, stoppeth inward bleeding, and healeth inward wounds and bruises; is good

to bath the feet with when blistered with travelling, relieves stiffness in the joints and sinews.

BEECH-TREE.—It is so well known that it needs no description, see Table 172 Dr. Newton's Herbal.

BEECH-NUT, or Beech-mast, is the seed or fruit of the beech-tree, and is recommended for feeding and fattening hogs: these animals may be secured from the Gargut, by moistening some pease and beans with water, sprinkling them with powdered antimony, and repeating this medicine every other day for a fortnight. The same precaution should be used when hogs are fed upon acorns. In Hertfordshire, where beech trees grow spontaneously, swine are kept upon the mast only, and turned out about the middle of October, or sometimes sooner. On this food they thrive very fast, and generally afford fine meat. When a hog is intended to be killed for pickling, it should be previously taken home for a month or five weeks, and fed with pol-lard, barley meal, or pease. It has, however, been remarked, that the flesh of swine fed upon beech-mast, is of too soft a nature, and easily boils away.

When these nuts are eaten by the human species, they occasion giddiness and head-ach; but after being well dried and ground, they have been found to make wholesome bread; they have also occasionally been roasted, and used as a substitute for coffee.
—*Dom. Enc.*

BEETS, RED AND WHITE.—Are so common in gardens and so well known, that they need no description.

Nature and Properties.—According to Mr. *Rocque*, the white beet is a most excellent fodder for cows; the best way of feeding them, is to mow the plant, and give it to them fresh during the summer.

The red beet is possessed of mild aperient qualities, and affords but a weak nutriment to the human body. Hence it should be eaten for supper, by persons of a costive habit: but, though it be easily digested, its use is sometimes attended with flatulency: for which reason it would be more wholesome and nourishing, to eat the beet with other more mealy roots, such as potatoes; or with those of an aromatic nature: for instance, parsley, celery, &c.

BENT GRASS.—There are eight species indigenous, but two only deserve notice, the Silky Bent Grass grows to the height of three or four feet, on dry sandy fields, the flowers are a brown colour.

Nature and Use.—When young, it affords a tolerable fodder for cattle; but should not be given to them in its mature state, as its sharp leaves are apt to hurt their gums. With a decoction of the brown flowers and stalks of this species, linen may be dyed of a yellow colour, merely by repeated dippings, without any

farther addition, except a little allum, which gives it a greenish shade. The stalks are used by the Russians and Tartars, for manufacturing beautiful basket-work.

CREEPING BENT GRASS.—Or *Blue Squitch Grass*, grows in moist meadows and fields.

It deserves to be cultivated, as it produces a wholesome and nourishing fodder for cattle; and, at the same time, suppresses the growth of mosses, and other weeds, by its quick and luxuriant vegetation.

BERBERRIES.—Or *Barberries*, or *Piperedge-Bush*, seldom grows above five or six feet high, and is very common in different parts of England, the shoots or branches of this shrub, have sharp points or pricks, and are covered with a rough whitish bark, but the innermost is remarkably yellow, or of a safferrine colour; the leaves are rather small, somewhat of an oval shape, bearded round the edges, and of a very acid taste; the berries are small, and of a scarlet colour when ripe.

Medicinal Virtues.—Culpepper says, that the innermost rhind or bark, boiled in white wine, and a gill drank each morning, is an excellent medicine to cleanse the body of choleric humours, and freeth it from the itch, tetters, ringworms, yellow jaundice, biles, &c. The berries are likewise of service in cooling the body in hot agues, extreme heat of the blood, bloody flux, &c. The berries may be used in the same manner as the bark, and are more pleasant.

Barberries, on account of their astringent properties, have occasionally been prescribed in bilious diarrhœas. The Egyptians used them in fluxes and malignant fevers, for abating heat, invigorating the body, and preventing putrefaction. For this purpose the fruit, according to Dr. Lewis, should be mascerated for twenty four hours, in twelve times its weight of water, with the addition of a little fennel seed; the liquor, when strained, should be sweetened with sugar, or syrup of lemons, and given liberally as a drink. The flowers, when near, are offensive to the smell, but at a distance their odour is extremely fragrant. An infusion of the bark in white wine, is purgative. In distillation the berries, when previously bruised, have been mixed with the grain, to increase the quantity of spirituous liquors. The roots boiled in ley, impart a yellow colour to wool; and in Poland, leather is tanned of a most beautiful yellow, with the bark of the root. The inner bark also, with the addition of allum, has been employed for dyeing linen of a similar colour.

The effect of this shrub upon wheat lands is truly singular; and though well known to botanists, is not familiar to every farmer. When growing in the hedges near corn-fields, it changes the ears to a dark brown colour, and prevents them from filling; nay, its influence in this respect has often extended across a field

to the distance of three or four hundred yards; it should, therefore, be carefully eradicated from land appropriated to tillage. It is eaten by cows, sheep, and goats, but is rejected by swine.
—*Dom. Enc.*

BETONY, WOOD.—Common Wood Betony, hath leaves growing from the root. rather broad, round at the end, and indented about the edges, standing on long foot stalks; the principal stems rise from among these leaves, square, slender, upright and hairy, with smaller leaves at each joint, than those growing immediately from the root. The flowers grow in spikes at the top of the stems, resembling lavender, but larger and are of a purple or red colour. The root remains all the winter with a few of the leaves growing from it.

Time and Place. It flowereth in July and August, and is generally found in woods, thickets, and other shady places.

Medicinal Virtues.—The leaves and flowers have a bitterish taste accompanied with a weak aromatic flavour. They are mild corroborants, and when infused, or gently boiled, the decoction may be drank as tea: a strong tincture made in rectified spirit, has proved beneficial in laxity and debility, when taken in small repeated doses.

It is remarkable that the roots of this plant greatly differ in quality from the other parts; the former are bitter, nauseous, and, like the roots of helebore, occasion violent diarrhœa, when taken in a small dose. It is farther affirmed, that betony affects those who gather any quantity of its leaves and flowers, with a disorder resembling the effects of intoxication.

Tanners have employed this plant as a substitute for oak-bark, and according to *Dambournej*, the leaves and branches of the betony, when in blossom, may be used for dyeing wool of a permanent dark brown colour, when previously dressed in a weak solution of bismuth.—*Dom. Enc.*

BILBERRY.—Is a plant of which there are many species: the following four are indigenous.

THE MYRTILLUS, or *Bilberry*, which grows in abundance in woods and on heaths, too well known to need describing.

Nature and Use.—The berries when ripe are of a dark blue colour; and, on account of their astringent quality, are occasionally given in diarrhœas, with good effect. In Scotland, they are eaten by the highlanders in milk; and likewise used in tarts, and jellies; they produce a violet coloured dye, which requires to be fixed with allum. The juice, mixed with a fourth part of lime, verdigrise, and sal ammoniac, affords a purple pigment used by artists. The young tender leaves of this plant, properly dried, are an excellent substitute for tea.

THE RED WHORTLE BERRY, which grows on heaths and in woods. Its fruit is acid, and cooling. In Sweden, it is

eaten in the form of a jelly. The young leaves of this species might also be advantageously used instead of tea; from which they can scarcely be distinguished.

THE GREAT BILBERRY, is found on marshy heaths.

The fruit of this species is not so much esteemed as that of the preceding, because if eaten in any quantity, it is apt to occasion head-ach.

THE CRANBERRY. They are common in bogs covered with moss, grows abundantly in the North of England.

Medicinal Virtues.—All the species of the Bilberry are antiseptic: and their juices, mixed with sugar, and properly fermented, may be converted into grateful and wholesome domestic wines.

BIFOIL.—Or *Twa-bladi*, (see Table 72, Dr. N's Herbal.)

BLADE, ONE.—For the representation, see the above named Table. Neither of the above plants have any certain, or particular virtues; consequently, we shall desist from any further description.

BINDWEED.—Is a genus of plants, comprising 43 species, of which only three are natives of Britain: namely,

SMALL BINDWEED, a common plant in fields and hedges, but particularly troublesome in gardens of a gravelly soil; its white and red flowers appear in June and July. As the roots of this plant, particularly in wet seasons, strike deep into the ground, and injure the growth of corn, they ought to be carefully extirpated, and transplanted on the sandy banks of rivers and lakes, where they greatly tend to bind the soil. Bees are uncommonly partial to the flowers; and it is eagerly eaten by black cattle, and sheep.

GREAT BINDWEED, is likewise a pernicious plant in gardens, it thrives under moist hedges, its stalk grows to the height of several feet, and bears white or purplish blossoms in July and August. The root of this species is very acrid and purgative to the human constitution; but does not affect swine, though eaten in large quantities. Its flowers are frequented by bees.

SEA BINDWEED, grows on the sandy shores of the sea, but cannot be long preserved in gardens; its purple flowers blow in July. This species is also possessed of cathartic properties, so that half an ounce of the juice of the root, or one dram of the powder, is a strong dose. The leaves of the sea Bindweed have often been externally applied for the reduction of dropsical swellings of the legs; and, it is asserted, with good effect. See Tables 99, and 100, Dr. N's. Herbal.

BIRCH-TREE, COMMON.—Is not of a large growth, but when cultivated in a favourable soil, and a good situation, it rises to a considerable height. There is a degree of elegance in its general appearance in summer, and the bark in winter is frequently variegated with red and white streaks round the bole.

Medicinal Virtues.—The leaves have been used in the itch, dropsy, &c. either applied externally, or in decoctions taken by the mouth. Birch-wine according to Dr Needham, is an excellent remedy for consumptions, and in the scurvy. The fungus which grows on the Birch-tree is a very good styptic.

The bark of this tree when boiled with allum, affords a dye of a dark red colour. *Dambourney* asserts, that the bark is better for tanning when dried, than in a fresh state. For this purpose it is cut into small pieces, and boiled for half an hour in pure water; and the prepared hides are steeped in it, while lukewarm. The ley is again boiled on the two following days, and the steeping of the leather as often repeated; after which it is suspended to dry in the air. Leather thus prepared, is said to be water-proof.

The leaves of the Birch give a yellowish colour to wool, which has been previously prepared with alum. Those collected in the spring, however, are not so proper for dyeing, as the autumnal leaves; because the former produce a greenish tinge; but the latter afford a beautiful yellow colour.—*Dom. Enc.*

BIRD-CHERRY.—Is a species of cherry-tree, growing wild in several parts of Britain, especially in the North of England, and some parts of Norfolk.

The bird-cherry tree attains a height of fifteen or twenty feet, is of a shrub-like growth, with a branchy top; its leaves are large oblong, rough and serrated; the fruit large and red. From the fruit of the bird-cherry an agreeable wine may be produced: and it is affirmed in the Transactions of the Swedish Academy, for 1774, that its kernels, when deprived of their external rind, afford so good a substitute for almond milk, that the most experienced persons cannot ascertain the difference. Its wood is much used on the continent, by Cabinet-makers and Upholsters:—its inner bark affords a green lixivium for dyers.

BIRD'S FOOT, COMMON.—Scarcely grows a foot high, has many branches, which spread on the ground, they are set with wings of small leaves: the flowers are small and grow on the branches, of a pale yellow colour; after the flowers follow small jointed pods, resembling the claws of a bird, whence it is generally supposed it received the name. This plant affords a good fodder for sheep, in the latter end of autumn. There is another sort of Bird's Foot much resembling the former, except that it rises a little higher, the flowers are of a pale red colour, and the root has many small white knots growing amongst it.

Place and Time. They grow on heaths, and other open untilled places, and flower in July and August.

Medicinal Virtues.—They are both of a dry, binding, nature. Culpepper says, that a decoction being drank of the latter kind, is found to break and expel the gravel and stone, helpeth a rupture, being outwardly applied.

BIRTHWORT.—BISHOP'S WEED.—BISTORT. 19

BIRTHWORT, SLENDER.—Is the only indigenous species of that plant; it has heart shaped leaves, an upright stem, and its root is long and slender.

Medicinal Virtues.—On being chewed, the Birthwort instantly imparts an aromatic bitterness, not ungrateful to the palate. It possesses medicinal virtues, and is prescribed as an attenuant of viciid phlegm, and promoter of the fluid secretions. The dose in substance is from a scruple to two drams. There are four other species of this plant imported for medicinal purposes, particularly the *Aristolochia Longa*, a native of France, Spain, and Italy, is applied externally in cutaneous diseases, as likewise for cleansing and healing wounds and ulcers.

BISHOP'S WEED.—The common kind groweth up with a round upright stalk, three or four feet high, beset with very small, long, and somewhat broad leaves, indented round the edges, growing one against the other, of a dark green colour. The stalk hath divers branches, on the top of which blow the small white flowers in umbels, which are followed by seeds, resembling parsley-seeds, of a hot and biting taste. The root is white, rather thick, from whence grow many fibres, the whole perisheth every year, and is propagated from the seeds.

Time and Place. It grows wild nearly all over England, and flowers in July and August.

Medicinal Virtues.—A decoction made of this herb, with wine, Culpepper says, helpeth the stranguary, expelleth wind, and easeth pains of the bowels &c. (See Table 148, Dr. N's. Herb.)

BISTORT, GREAT.—Or *Snakeweed*, is a species of knot-grass most plentiful on meadows and pastures, in the northern counties of England; it has a thick oblique root, about the size of a finger, blackish brown without, and redish within; a simple round slender stem, nearly two feet high; oval leaves, and the stalk terminates in thick short spikes, of whitish red flowers, which appear in July, and are productive of seeds in August. (See Table 70. Dr. N's. Herbal.)

Medicinal Virtues.—All the parts of this plant have a rough, austere taste; the root in particular, is one of the strongest vegetable astringents produced in this climate; and therefore, justly recommended in intermittent fevers, immoderate hemorrhages, and other fluxes, both internally and externally, where the constitution of the patient requires such a medicine. According to a late popular writer, it has often, and especially in agues, been given in larger doses than those commonly administered; he has prescribed it both alone, and together with gentian, to the amount of three drams in one day. It is allowed to be a very powerful styptic, and consequently possessed of antiseptic properties; but we doubt, whether it is sufficiently efficacious to supersede the use of Peruvian bark, or even that of white willow,

Cattle and sheep are exceedingly partial to the herbage of the Great Bistort; but horses will not eat it. The young leaves are excellent for culinary use; and a small quantity of the root, reduced to powder, and added to the dough in baking, communicates an agreeable taste to the bread, and improves its salubrity.

The Great Bistort has likewise been usefully employed in the arts of dyeing and tanning. According to *Gleditsch* and *Bautsch*, two creditable authors, the herb with its blossom has, by tanners on the Continent, been found to be a proper substitute for oak-bark: and *Dambourney* assures us, that from the root of this plant he obtained a decoction of a *modore* shade, in which he dyed wool of a real beaver colour, after having previously immersed it in a ley, saturated with a solution of bismuth.—*Dom. Enc.*

BISTORT, SMALL.—*Welch*, or *Alpine*, is likewise an indigenous plant, growing on the moorlands in several parts of Westmoreland and the North Riding of Yorkshire; it has a smaller root than the preceding species; a simple slender stem, six inches high, spear-shaped leaves, and the stalks and branches terminate by spikes of whitish red flowers, which appear in June or July, and bear seeds in August. (See Table 70, Dr. Newton's Herbal.)

Nature and Use.—Although we have no distinct account of the economical and physical uses of this plant, yet it may be rationally inferred, that it is not inferior to the preceding species. Indeed, *Gmelin* informs us, that its root is so far from being astringent, in the island of Kamtschatka, that the inhabitants eat it in a raw state; and *Steller*, a late traveller, found it sufficiently sweet and nutritive, to support him without any other aliment, for several days. The Samoiedes also eat it as a sweet and wholesome food. Several other nations dry and reduce this root to flour, of which they bake good bread. If credit be due to *Oloff*, who has visited Iceland, the inhabitants of that inhospitable climate make bread, even of the small knots which grow on the upper part of the stalk.—*Dom. Enc.*

BLADDER-NUT-TREE.—Is a plant containing two species, the indigenous of Britain, and the *three leaved* Bladder-Nut a native of Virginia: we shall confine our account to the first species. The flowers are white, and grow on long pendulous foot-stalks; the plant blows in June, and may be found in hedges near Pontefract, and in Kent.

Nature, &c.—This shrub affords an oil which might be employed for lamps, but the trouble of expressing it is too great. The wood is hard and used on the Continent for various domestic purposes; and the flowers are much frequented by bees.

BLITE, THE SMALL RED.—Is an indigenous species of the amaranth, which is frequently found growing on rubbish, &c. It flowers in July and August; on the Continent its seed is used

as a substitute for millet, and the leaves are dressed and eaten like spinach. (See Table 47, Dr. N's. Herb.)

BLOODWORT.—Or *Small grained Dock*, is a plant seldom cultivated, as it so quickly propagates that it becomes a troublesome weed.

Nature and Properties.—The fresh leaves and stalks of this vegetable afford a juice of a dusky blood-red colour; which, after standing for a short time, changes to a dark blue or violet tint; and if prepared with alum, it might probably be used in dyeing. This juice when laid over other colours in painting, imparts to them an additional lustre, and may be used, if properly mixed, either as a red or blue colour.

BLUE-BOTTLE, CORN.—Is a plant common in corn-fields, too well known to need describing: (See the Icon Table 127, Dr. N's. Herbal.)

Nature and Use.—A decoction of the flowers with galls and copperas, affords a good writing-ink; and it may also be employed with success in the dyeing of linen or cotton. It has two blue tints, the one pale in the larger outward leaves, the other deeper, which lies in the middle of the flower; by rubbing the last while fresh, so as to express the juice, it will yield a beautiful and unfading blue colour.—*Dom. Enc.*

BORAGE, COMMON.—A native plant, frequently found growing on waste land, and upon old walks; it is rough, and clothed with small prickly hairs; has alternate leaves, and bears blue spreading flowers in June and July. (See Table 104, Dr. N's. Herbal.)

Useful Properties.—The flowers of the borage are much frequented by bees, and the plant itself may be used as a culinary vegetable, or as an ingredient in lettuce-salad, to which it imparts an agreeable flavour. The whole of this plant abounds with nitrous particles, which may be easily obtained by elixation; for after evaporating the lixivium to a proper consistence, and allowing it to stand in a cool place, crystals will be formed, which deflagrate upon the fire, and possess all the properties of salt-petre.

BOX-TREE.—A well known beautiful ever-green shrub, generally growing in gardens. (See Tab. 168, Dr. N's. Herb.)

It is asserted, that a decoction of box-wood rubbed on the head, will speedily restore the hair decayed in consequence of malignant fevers; but care should be taken in applying it, to prevent it from touching the skin of the face, which, in consequence of this embrocation, would likewise be covered with hair. A similar decoction has been recommended as a powerful sudorific, even preferable to Guaiacum; though, at present, neither the wood nor the leaves of the box-tree are used for medicinal purposes.

22 BRAMBLE.—BRANK-URSINE.—BROME-CRASS.

BRAMBLE, COMMON.—A species of the raspberry-bush, which grows wild in hedges, and has three varieties, one of which bears white fruit.—There are several other species indigenous in England; as the *Saxatilis*, or stone Bramble; the *Arcticus*, or dwarf crimson Bramble; the *Chamæmorus*, or mountain Bramble, by some called cloud-berry; and the *Corylifolius*, or hazel-leaved Bramble.

The fruit of this bush, when eaten immoderately, and too frequently, are apt to produce the most violent effects, as fever, delirium, &c. Wine and vinegar are sometimes made from the fruit of the bramble; and a syrup and jelly prepared from it, are used as gentle astringents. The leaves afford several colours in dyeing.

As this plant is of quick growth, it may be advantageously employed for inclosures; because it defends the young quick-set hedge from sheep, and by intertwining itself with a dead hedge, preserves it from injury. The usual method of planting it, is in two rows upon the bank, the lower of Bramble, and the upper of White-Thorn.

BRANK-URSINE.—Or *Bear's Breach*, (see Table 132, Dr. N's. Herbal,) is a kind of Thistle, that shooteth forth many large, thick, sad green smooth leaves, lying on the ground, the middle rib of which is very full of juice, they are deeply gashed round the edges; the stalk grows up after the leaves, three or four feet high, smooth and bare in the lower part, but towards the top stand the flowers, which are hooded and gaping, white, and standing in brownish husks, with a long small leaf under each; the root is large, blackish on the outside, but white within, and full of a clammy juice.

Time and Place. It flowers in June and July, and is generally found in gardens, where a part of the root being set and defended from the cold, will grow and thrive well.

Medicinal Properties.—Culpepper says, that the leaves are good to be used in clisters, and that a decoction being drank is useful in the bloody flux.

The juice of this plant being applied to burns and scalds, draweth out the fire, and healeth the wound very soon.

BROME-CRASS.—Or *Broom-grass*, a genus of plants comprehending forty-six species, of which according to Dr. *Withering*, only nine; but, according to Dr. *Smith*, twelve are indigenous: the following three are the principal:

SMOOTH RYE Brome-grass, which is not rare in Norfolk, and grows near Edwin's Ford, Carmarthenshire, among the winter corn; with panicle expanding, husks naked, seeds distinct, awns shorter than the blossom, not quite straight: it flowers in July. Cattle are fond of this grass, the seeds of which are prevalent among rye, in a considerable proportion, and when ground with

the latter for bread, not only render it blackish, but produce a narcotic or stupifying effect.—From its flower-bundles, as *Bechstein* informs us, a beautiful green dye may be easily extracted.

THE SOFT *Brome-grass*, Lob-grass or Oat-grass, is mostly found growing in corn-fields, though sometimes in meadows, pastures, hedge-banks, and even on walls; panicle rather upright; leaves very soft and woolly; awn about the length of the blossom; flowers in May and June.—*Bechstein* affirms that this plant affords a very agreeable fodder to all kinds of cattle, and that it deserves to be cultivated on sandy lands, as being well adapted to consolidate the soil. But its merits and demerits, in an agricultural view, are not sufficiently ascertained. Mr. *Swayne* says, that it is troublesome weed in corn-fields, and therefore disliked by farmers; while it is of little value in pastures and mowing grounds, where it generally sheds its seed before the time of mowing, and produces very few root-leaves.

THE SPIKED HEATH *Brome-grass*, is found growing on heaths and fields of a calcareous soil, particularly in Yorkshire, Oxfordshire, and Kent; its straw undivided; spikets alternate, nearly sitting; cylindrical, somewhat awned; it flowers in July. This grass is much relished by cattle of every description, but especially by sheep and goats.

BROOK-LIME.—A species of *Speed-well*, growing in slow, shallow streams, and near springs that seldom freeze. The whole of this perennial plant is smooth and succulent; the stem creeping; the leaves are egg-shaped, flat, serrated with glands; the blossoms which are blue, appear in June and July.—We have mentioned it as one of the neglected vegetables, which may occasionally be used for culinary purposes, and particularly as a salad. (See Table 52, Dr. N's, Herb.)

BROOM, COMMON.—An indigenous plant, very common on sandy pastures and heaths, and requiring no particular description. When growing of a large size, the broom deserves a place among our flowering shrubs, on account of the profusion of its gold coloured blossoms.

Medicinal Properties, &c.—Its use is very extensive, not only in domestic economy, but likewise in the arts, and in medicine. Although this vegetable is chiefly employed for making brooms, thatching houses, and covering stacks in preference to straw, as it more readily admits the air into the stack, and equally well secures it from rain; yet it also serves as a substitute for oak-bark, in the tanning of leather; for which purpose both the twigs and branches are usefully employed. The old wood of the common broom furnishes the cabinet-maker with most beautiful materials for veneering. In some places, the tender branches of this plant are mixed with hops in brewing; but we doubt whether they are wholesome, as it is affirmed that sheep become intoxicated by

browsing upon them. The flower-buds may be preserved as pickles, and eaten instead of capers. From the roasted seeds a kind of coffee has been made by the house-wife, though of inferior taste to that obtained from the root of the carrot, beet, succory, &c.

The macerated bark of the broom has been found sufficiently fibrous and elastic to be manufactured into cloth.—A tolerable pure alkaline salt is produced by burning the whole plant.

In proof of the medicinal properties of this vegetable, Dr. Mead relates the case of a dropsical person, who was recovered by taking half a pint of the decoction of green broom-tops, with a spoonful of whole mustard seed, every morning and evening. The patient had been tapped three times, and had tried the usual remedies to no purpose. Dr. *Withering*, on this occasion, observes, that an infusion of the seeds, drunk freely, has been known to produce similar happy effects; but whoever expects such benefit to follow in every dropsical case, will be greatly deceived. He has known them succeed in one case that was truly deplorable; but out of a great number of trials fairly made, this proved to be the only instance, in which the medicine had a good effect. A strong lixivium of the ashes was used in the Swedish army, in the year 1759, for the cure of dropsies consequent to a catarrhal epidemic fever. The urine became plentiful, and the patients were soon restored.

BRYONY, WHITE.—Or *Red-berried Bryony*, is a native plant, growing in many parts of England, under hedges and thickets. The root is perennial, large, often a foot in circumference; the stem is several yards in length, the leaves nearly hand-shaped; the flowers of a yellowish green colour, appearing in May and June; and the fruit is a smooth red berry, containing five or six seeds. Some curious persons have a method of carving these roots into human figures, and selling them as mandrakes; but this useful production may be converted to much better purposes. By long steeping, and cleansing in several waters, the roots may ultimately be deprived of their acrimony and bitterness, so as to afford a tolerable flour; from which (if credit be due to the late Rev. Dr. *Bohmer*, senior of the University of Wittenberg, in Saxony,) M. *Morland* has prepared both *starch* and *bread*.

Although this is generally considered as one of the poisonous native vegetables, yet there is reason to believe that, especially in Summer, when the bitter juice has in a great measure ascended from the root to the stalk and branches, it may usefully be converted into bread; and as it grows to a prodigious size, a little trouble would be well rewarded.—Mr. *Hollefer* states, that two or three of the berries have been eaten without any observable effect. Bryony-root is purgative and acrid; its smell is strong and disagreeable; its taste nauseously bitter. In Spring, it

abounds with a thin milky juice, which is so sharp as speedily to excoriate the skin; but a great part of the acrimony, and almost the whole of the scent, is lost by drying. In summer the root is less juicy, and weaker both in smell and taste. An extract prepared in water, acts more mildly, and with greater safety, than the root in substance. When given in a quantity from half a dram to a dram, or half an ounce of it infused in wine, it proves a gentle purgative, and likewise operates powerfully by urine: Hence small doses of its milky juice have been strongly recommended by *Bergius*, for dropsical and asthmatic complaints. A cold infusion of the root, in water, is externally used in rheumatic pains, or the *sciatica*. In the form of a cataplasm, it proves a most powerful discutient. Decoctions made with one pound of the fresh root, are the best purgatives for horned cattle. In short, observes Dr. *Withering*, the active virtues of this plant entitle it to more attention than is bestowed on it at present.

BRYONY, BLACK.—Or the *Bryony Lady-seal*, Is also a native plant. It has a large root, sending forth several stems, large heart-shaped, dark-green leaves; greenish flowers, and red berries; it blows from May to August, and is frequently found under hedges. According to Dr. *Withering*, its young shoots are good eating, when dressed like Asparagus; but horses refuse to eat the plant. Its root is like that of the white Bryony, acrid and stimulating.

BUCK-BEAN.—Or *Marsh Trefoil*, *Water Trefoil*, *Marsh Clee-ver*, or *Trefoil Buck-bean*; grows in moist, marshy places, in many parts of Britain, and its very beautiful flowers appear in June and July. This useful plant is, according to *Bechstein*, a very agreeable fodder for cattle: its cultivation is therefore recommended, for improving marshy lands. Dr. *Withering* informs us that cows, horses, and swine refuse it. From experiments made at Upsal, in Sweden, it appears that though goats eat it, sheep will not always relish its leaves; which by some persons, are smoked instead of tobacco. It is farther asserted by others, that such sheep as have a relish for the marsh trefoil are, by eating it, cured of the rot.

Useful Properties. In Lapland, the powdered roots of this plant are converted into bread, which, however, is not very palatable: and the country people of West-Gothland, in Sweden, employ it for imparting a bitter to ale; for which purpose two ounces are equally efficacious as one pound of hops. Dr. *Darwin* also recommends these leaves as a substitute for hops; and adds, that they might be equally wholesome and palatable. In dyeing they afford, according to *Bechstein*, a green and yellow colour.

Medicinal Virtues. &c.—An infusion of the leaves is extremely bitter, and is prescribed in rheumatisms and dropsies; one dram of them in powder, both purges and vomits; and is occasionally

given as a vermifuge. Dr. *Lewis* considers the Buck-bean as a powerful aperient and deobstruent, promoting the fluid secretions. It has of late gained great reputation in scorbutic and scrophulous disorders. Inveterate affections of the skin, have been cured by an infusion of the leaves taken at proper intervals, to the quantity of a pint in twenty-four hours, and continued for several weeks. *Boerhaave* cured himself of the gout, by drinking the juice of this plant mixed with whey. Stubborn facts, like this, require great authorities.

BUCK-THORN.—There are two species of this plant growing in Britain: viz:

THE PURGING BUCK-THORN, is a shrub growing in woods, and hedges, very common in Shropshire. It attains, if cultivated, the height of 16 feet, flowers in May and June, and its fruit ripens about Michaelmas: goats, sheep, and horses eat the leaves, but cows refuse them.

Medicinal Properties.—Buck-Thorn berries have long been esteemed, and a syrup prepared from them is still kept in the apothecaries' shops, though seldom prescribed; as it occasions much sickness and griping. In a Latin treatise, published by Dr. *J. G. Kolb*, of Erlang, 1794, the bark of the Buck-thorn is much recommended as a mild, cheap, and efficacious remedy, in every respect preferable to the berries. After being exposed to the air, or soaked in water, this bark soon assumes a yellow orange colour. It contains a considerable proportion of gummy ingredients, which render it a tonic, gentle astringent, and antiseptic medicine. The resinous extract is acrid and astringent, strongly purgative and resolvent: but the bark, in powder, mixed with honey, gum arabic, or any other mucilage, as well as a watery decoction of it, operates mildly, when taken in small doses, for the cure of intermittents: It may also be beneficially employed in slow, putrid or nervous fevers, and in general debility after chronic diseases. Externally applied, in green wounds, laxity of the fibres, malignant foul ulcers, and in stopping the progress of mortification, this remedy possesses tonic, gently stimulating and healing properties. The decoction is of great service in reducing inveterate inflammations of the eyes, and curing the itch; as it cleanses the skin, and abates the burning heat, without repelling the humours. But it should never be employed in ulcers that have arisen in consequence of erysipelas, or the rose; in other cases. its application will always be more safe, and attended with better effects, when it is at the same time used internally.

From the juice of the unripe berries, with alum a yellow; and from the ripe ones a fine green dye is obtained: the bark also strikes a yellow and brown-red colour. The juice of the unripe berries is of the colour of saffron, and is used for staining maps or paper; that of the ripe berries is the sap green of mi-

niature painters, and is much esteemed; but if they are gathered late in autumn, the juice is purple.

Bechstein remarks, that the book-binders in Germany, extract this colour, by mixing the fresh juice with deep-red, or violet liquids, with which they dye the most beautiful sorts of paper and leather.

THE ALDER BUCK-THORN, Or *Black berry bearing Alder*, grows in woods and most hedges; it generally attains a height of from six to ten feet. The wood of this shrub, when young, is soft and yellow, but becomes hard, and light-red with age: its external bark is dark-grey, with white spots, but internally yellow; the branches contain an orange-coloured medullary tube. Its yellowish leaves appear late in May, or June, and sometimes a second foliage comes forth in Autumn. The berries are at first dark-green, then become red, and at length black, when fully ripe; containing a sweet though unpleasant taste. Goats devour the leaves with avidity, and they are also eaten by sheep: the flowers are particularly grateful to bees.

Medicinal Properties.—The rind boiled in milk, is asserted to be a safe and efficacious remedy for eruptions of the skin; yet we do not advise the reader to try experiments with this, or similar remedies, without consulting a medical friend. Decoctions of the bark in table-beer, are very certain and brisk purgatives, in dropsies, or constipations of the bowels of cattle.

The bark dyes yellow, and with iron, black. The berries gathered before they are ripe, dye wool green. Charcoal prepared from the wood, is preferred in making gun-powder. *Dambourney* made the following successful experiment with the ripe berries; He bruised them in cold water, and allowed the whole to undergo the vinous fermentation, which took place in eight days: this liquor he boiled for half an hour, and then dyed wool that had been previously prepared with bismuth: thus he obtained a very beautiful green colour, which he called a new, or native green, because it was not in the least affected either by strong vinegar, or a solution of potash. On adding a little sugar of lead to the dye, the vivacity of the colour was considerably increased.

BUCK'S-HORN, PLANTAIN.—It is generally sown from the seeds, and grows up with small, dark-green leaves, narrow and hairy, those that follow are divided into parts somewhat resembling a natural buck's horn; from amongst the leaves riseth the stalks, bearing a small, long, spikey head, (see Table 72, Dr. N's. Herbal.)

Place and Time. They grow in sandy soil, in different parts of England, and seed in May and June.

Medicinal Virtues.—Culpepper says, that the herb being boiled in wine, and a certain quantity taken morning and evening,

stoppeth the rheums from falling into the eyes, and thereby preventeth inflammation.

BUGLE.—A genus of plants comprising three species, all of which are natives; but we shall only mention the common Bugle, which grows in woods and moist pastures, in many parts of Britain; the leaves are large, pointed, and indented round the edges, green, but sometimes of a brownish colour; they grow from the square hairy stalk, which rises near two feet high. The flowers grow towards the top, of a blueish-red, and sometimes whitish colour, resembling the flowers of ground-ivy. (See Table 106, Dr. N's. Herbal.)

Time. They blossom in May.

Medicinal Virtues.—Culpepper says, that a decoction of the leaves and flowers in wine, being drank, is of great service to those that have received inward bruises, wounds, &c. The root is very astringent, and strikes a black colour with vitriol of iron.

—*Dom. Enc.*

BULL-RUSH.—Or *Club-Grass*, is an indigenous plant, frequently found in rivers, pools, and fens. It attains a height of from five to twelve feet, and is, near the root, about the thickness of a finger. Its spikes are dark-chesnut, or dark-brown, with a tinge of red.

When fodder is exhausted, cattle will live upon this plant; and for that purpose it may be made into hay. Goats and swine eat it, but it is refused by cows and sheep. In Sweden, cottages are thatched; and, in Britain, pack-saddles are stuffed with the Bull-rush; bottoms of chairs, and mats, are likewise, very commonly made of it; and their finer or coarser quality depends upon the age of the grass.—From the pith, or medullary substance of this vegetable, a kind of paper may be prepared, by pressing it, and afterwards giving it consistence, by a proper addition of size.

BURDOCK.—Or *Clot-burr*, a well known plant growing on the road sides, on rubbish and ditch-banks, bearing purple blossoms in July and August.

The blackish, but internally white root of this vegetable, might be very advantageously employed in washing, on account of its saponaceous property. Before the flowers appear, the tender stems stripped of their rind, are boiled and used like asparagus; or eaten with vinegar and the yolk of eggs, rather than oil, in the form of salad.—The plant is browsed upon by cows, and goats, but refused by sheep and horses; nor is it relished by swine. *Bohmer* mentions the root of the burdock, among those vegetables from which starch may be extracted; and *Schaefer* obtained from the stalks a whitish green paper. Boys catch bats with its flowers.

Medicinal Virtues.—In medicine, says Dr. *Withering*, decoct-

tions of the burdock root are esteemed, by judicious physicians, as equal if not superior to those of sarsaparilla. The fresh root has a sweetish bitter, and somewhat austere taste; is aperient, diuretic, and sudorific; and said to act without irritation, so as to be safely used in acute diseases. The seeds have a bitterish, sub-acrid taste, and are recommended as powerful diuretics, when taken either in the form of an emulsion, or a powder, in doses not exceeding one dram.

BURDOCK, THE LESSER.—Is likewise a native plant, growing on dung, and grounds highly manured; the thornless stem is a foot and a half high, thick, often spotted; the leaves heart-shaped, lobed, on long foot-stalks, and it flowers from June to September.

The leaves are bitter and astringent; they are eaten by horses and goats, but refused by cows, sheep and swine.—A decoction of the whole plant yields a bright yellow colour; which, however, is more lively, when the flowers alone are employed.

BURNET, THE GREAT.—Or *Wild*, or *Meadow Burnet*; a native plant, growing on moist pastures, especially on a marly and calcareous soil, in the North of England. It is a hard woody plant, and grows from two to three feet high, branching towards the top, and terminated by thick oval spikes of flowers, of a greyish brown-colour, which appear in June and July.

This vegetable ought not to be confounded with the following, or the Upland Burnet, which is a very different genus of plants. The Great, or Wild Burnet, has been usefully employed in the art of dyeing. *Vogler* dyed wool, silk, linen or cotton, in a decoction of the dried, brown-red flowers, of a grey colour with a greenish shade, by the addition of alum; of a dark lilac, which soon assumed a beautiful grey, by adding a solution of tin; and of a deep black colour, on dropping into the liquor a solution of copperas.

According to *Bechstein*, the whole of the wild Burnet is used in tanning leather, as a substitute for oak-bark; and the plant is also relished by cattle, especially by sheep.

BURNET, THE UPLAND.—Or *Common garden Burnet*, is likewise a native plant, though it grows wild in a dry calcareous soil. It has fibry perennial roots, and retains its leaves throughout the year, but the stalks are annual; it has been long cultivated as a choice salad-herb in Winter and spring. The leaves being of a warm nature, are also used in cool tankards, and for imparting an agreeable flavour to wine. When bruised, they smell like cucumber.

It deserves to be noticed, that Burnet increases the quantity of milk in cows, and produces good butter;—it is likewise maintained, that the mutton of sheep fed on it, is more juicy, better coloured, and flavoured, than that from any other food; while

30 BUR-WEED.-BUSH-VETCH.-BUTTER-BURR.

it not only cures the rot in sheep, but also recovers such as have scowered.

BUR-WEED, THE GREATER.—Or *Bur-reed*, is an indigenous perennial plant, growing in ditches, marshes, and on the banks of rivers, where it flowers in July. (See *Bur-reed*, Table 11, Dr. N's Herbal.)

Nature and Use.—This plant though refused by sheep and horses, is eagerly eaten by cattle, while in a green state; but, when dry, it produces a hard fodder.—Its flowers, white in full bloom, have by *Bautsch*, been successfully employed in tanning.

BUSH-VETCH.—An indigenous plant, growing in woods, hedges, pastures and meadows. Its leaves are doubled together; bunches shorter than the leaves; the stem upright, sometimes four feet high; the blossoms of a dirty purple, and appear in May and June. This plant shoots earlier in Spring than any other eaten by cattle; vegetates late in Autumn, and continues green all Winter.

This plant is very palatable to all kinds of cattle, but its cultivation, on a large scale, would be attended with difficulty, as the seeds are generally devoured by a numerous species of insects. It is farther remarkable, that ants are extremely partial to this vegetable.

BUTTER-BURR, COMMON.—Or *Colt's-Foot*, is an indigenous plant, growing in moist meadows, pastures, and banks of rivers. Its leaves are the largest of any plant in Britain, and, in heavy rains afford a shelter to poultry, and other small animals. Its flowers appear in April, before the leaves, as in most other vernal plants.

Nature and Use.—The root, dug up in spring, abounds with a resinous, aromatic matter; it has a strong smell, and a bitterish, acrid taste. In Germany, the leaves of the Butter-burr are bruised and mixed with chaff, or cut straw, in which state they are fondly eaten by cattle.

Formerly, the root of this plant was highly esteemed as a sudorific, and alexipharmic, for which purposes a dram of it was given for a dose; but, as it has been found to possess those virtues in no very eminent degree, it has again been neglected in the shops. The late Sir *John Hall*, however, in his "*Virtues of British Herbs*," published in 1770, calls the common Butter-burr an admirable medicine in fevers of the worst kind; as, when taken *early*, it prevents the mischiefs that often arise naturally in the disease; and oftener from the errors of physicians.

BUTTER-CUP, BUTTER-FLOWER.—Or *Upright Meadow-Crow-Foot*; a very common weed, abounding in meadows and pastures; it has hairy leaves, and leaf-stalks; and bears yellow flowers in June and July.

Nature and Properties.—Many continental farmers attribute the



sudden death of cattle, which is often inexplicable, to their feeding on this plant; and therefore carefully extirpate it from fields and meadows.

It is very certain that the *seed-buds* of the Butter-cup are extremely acrid, and may therefore be employed for vesicatories, instead of the Spanish fly; though its blossoms are eagerly visited by bees. It is asserted, however, by Dr. *Pulteney*, that its acrimony is so volatile, that its virulence is totally dissipated by drying, and when made into hay, it is perfectly harmless, nay, even nutritious to cattle.—*Dom. Enc.*

C. CABBAGE.—A genus of plants, comprising sixteen species, most of which are natives of Britain.

Culture. Cabbage of all kinds, with a few exceptions, delight in rich, open and dry situations, yet not too much exposed to the inclemencies of our variable climate; care being taken at the same time not to plant them too near, especially when intended for seed; as, independently of their mutually obstructing the growth of their roots, by the commixture of their effluvia, they will produce a mixture of kinds. This is particularly the case with respect to the planting of white and red cabbages together, and of Savoy with either of those species. In fact it is to this cause we owe the continual importation of fresh seeds from abroad, our gardeners rarely saving any good red cabbage seed; whereas, if a contrary conduct were pursued, they might continue the species as good in Britain as in any other part of the world.

In whatever light we view this plant, whether as an article of food for man, or as fodder for cattle, it fully merits all the attention, which of late years has been bestowed upon it. It amply repays the care and diligence which the industrious cultivator bestows on it, each species being equally fruitful. And it is a fact, though not generally known, but which deserves greater publicity, that when the common garden cabbage is in perfection, and we wish to cut it, if, instead of severing the whole from the stalk, as is usually done, the loaf, or heart only be scooped out, and all the large lower leaves be left entire, a young cabbage will, in due time, be produced, superior in flavour, if not equal in size, to that of the first growth.

Qualities.—Every species of Cabbage is generally considered as being hard, affording but little nourishment, and as tending to produce flatulency; but this supposition does not appear to be well founded. Different vegetables have, we know, different effects on various constitutions; and to this cause may be attributed the opinion, generally received, respecting the unwholesomeness of Cabbages. They have a strong tendency to putrefaction, especially when frost-bitten; they become putrid much sooner than any other vegetable, and, when in that state their

smell is extremely offensive, and bears no small resemblance to that of animal substances in a state of putrescency. The Cauliflower is considered as the easiest to be digested, of all the various species of Cabbage. But notwithstanding these apparent obstacles to the use of this plant, it is not destitute of utility in a medicinal way; a decoction of red Cabbage being frequently recommended for softening acrimonious humours in some disorders of the breast, and also in hoarseness.

CALAMINT.—Or *Mountain-Mint*, an indigenous species of the Balm. Its botanical characters are; the foot-stalks axillary, forked, and generally shorter than the leaves; fibrous, perennial roots; upright, square, hairy, stalks, rising about a foot high; roundish, indented, opposite leaves, and verticillate clusters of small blueish flowers. It grows on the sides of roads and corn-fields, and is easily propagated by offsets.

Medicinal Virtues.—Calamint is now only ranked in medical practice among the mild corroborants. Infusions of the leaves in water have an agreeable smell, but a weak taste; yet, when inspissated, they leave a considerable quantity of a bitterish extract.

CALLANDINE.—See *Horned-Poppy*.

CALLANDINE, THE LESSER.—See *Pile Wort*.

CAMPION.—See *Catch-Fly*.

CALTROPS.—See *Pond-Weed*.

CARAWAY, THE COMMON.—Is an indigenous biennial plant, propagated from the seeds, which ought to be sown in autumn; it blows in the second year, and decays a short time after the seeds are ripe; a more particular description is unnecessary, as the plant is found in every garden.

Nature and Use.—This plant furnishes a wholesome and agreeable food to goats, swine and sheep, but is refused by cows and horses. The young roots are said to be more delicious than parsnips, and the tender leaves may be boiled with pot-herbs.

The roots carefully transplanted into a richer soil, make a very agreeable pickle when preserved with vinegar, sugar, &c.

On account of their aromatic smell, and warm, pungent taste, the seeds of Caraway may be classed among the finest stomachics and carminatives of our climate. To persons afflicted with flatulency, and liable to colics, if administered in proper quantities, they generally afford considerable relief, and may sometimes be used with advantage in tertian agues.

Caraway seeds, when finely pounded, spread on bread and butter, with a small quantity of ginger and salt, and eaten every morning and evening, have been found to be an excellent remedy against hysterics; unless this complaint arise from improper diet, acrid humours, bile, passion, &c.

CARROT.—A genus of plants comprising ten species, of which the common Carrot only, is cultivated in Britain, where

it was introduced from flanders, in the reign of Queen *Elizabeth*. Carrots are propagated from seeds, which may be sown at different times, during the whole season; in order to procure a succession of young roots for the table. They require an open situation, at a little distance from a wall; the seeds should be previously rubbed between the hands, to take off their beards, as they will otherwise adhere to each other, and come up in patches: but if sown close under the wall, they will too quickly run up to seed, and produce indifferent roots.

These plants delight in a warm, light, sandy loam, which should be dug to a considerable depth, to facilitate the roots striking downwards, as they are apt to become forked, and to shoot out lateral branches. They grow most luxuriantly after turnips, which render the land more clear of weeds than is found after any other crop.

As a culinary article, the carrot is well known; it also furnishes a wholesome and nutritious fodder for cows; if given to them in the winter, and early in the spring, it greatly increases their milk, and imparts to it an agreeable flavour. Hogs thrive well on carrots, which they fondly eat, when boiled in their wash. A sparing allowance of these roots, besides the usual food, is said to produce an invigorating effect upon hunters: plough, and cart-horses also eat them with avidity: and while thus fed, require no corn, and very little hay. Oxen and sheep fatten very speedily on carrots; and if the latter animals are *half fat*, when put up, they will be completely so, in about three months. This vegetable has also been cultivated for feeding deer, in parks; a practice which, in severe winters, when every other kind of food is scarce, has been attended with advantage. As a fodder for cows, sheep and swine, the tops of carrots are equally valuable with the roots. Nay, sometimes even hay has been made by mowing these tops, towards the latter end of June; yet they should not be cut so closely as to injure the crown of the root.

Medicinal Properties.—A marmalade of carrots, on account of their strong antiseptic qualities, has been successfully used for preventing and curing the *sea-scurvy*. An infusion of them has been found to afford considerable relief to persons afflicted with the stone, and worms, but especially the tape-worm.—A poultice made of the roots, has often been attended with similar success, in mitigating the pain, and abating the smell, of foul and cancerous ulcers.

CARDUS BENEDICTUS.—See *Thistle*.

CATCHWEED, THE TRAILING,—Or *German Madwort*, an indigenous plant, growing near roads, and amongst rubbish. Its angular stem bears blue, or purple flowers, in April and May; it is common near Buxley, in Sussex, and in Holy Island.

Sheep are exceedingly fond of this weed; and its tender leaves may be dressed and eaten as an excellent culinary vegetable.

CATMINT.—Or *Nep*, is a native plant growing on pastures and hedges, in a calcareous soil,—near Bungay, Suffolk; Wick Clifts; on the beach at Rampside; Low Furness; Dudley Castle, &c. Its stalk is a yard high, and branched; the leaves are of a velvet-like softness; the blossoms white, with a tinge of red, spotted with purple, and appear in July.

Nature and Use.—This is a hardy plant, and easily propagated by seeds; it has a bitter taste, and strong smell, resembling a mixture of mint and pennyroyal. An infusion of the catmint is recommended as a good cephalic, and deemed a specific in chlorotic cases; two ounces of the expressed juice are usually given for a dose. Cats are exceedingly fond of it, especially when it is withered. Mr. Ray mentions, that he had transplanted the common Catmint from the fields into his garden; but the cats soon destroyed it: those plants however, which came up from the seeds, uniformly escaped; and thus he found the old proverb verified, namely, *If you set it, the cats will eat it; if you sow it, the cats will not know it.*—The plant is eaten by sheep, but refused by cows, horses, goats, and swine.

CATS TAIL.—Or *Reed-Mace*, a genus of native plants consisting of two species: 1. The Great Cats Tail, bearing a stalk from six to eight feet high, leaves a yard long and somewhat sword-shaped, cylindrical catkins, and no blossoms; it grows on the banks of rivers, fish-ponds, and in marshes; 2. The small Cats Tail, with semi-cylindrical leaves below, where sheathing the stem; but flat and strap-shaped towards the end; it also grows in ditches and ponds, and is frequently met with in the clay-pits of Norfolk and Suffolk. There is, according to *Linneus*, a variety of the second species growing among rocks, where its roots are confined; so that it becomes smaller, but its spikes are more numerous. Specimens of it have been found on Hounslow-leath.

Useful Properties —The Cats tail is one of those neglected plants which might be easily applied to various useful purposes. At present its leaves only are employed, partly by coopers for calking the bottom of casks, and partly by the manufacturers of rush-bottomed chairs. In Russia, the woolly down surrounding the seed is mixed with the feathers of quails, and used for stuffing bolsters. But the Germans have lately made successful attempts towards converting the downy catkins of this plant into a more valuable article of commerce. In 1789, M. Weichhan, an ingenious hatter of Ostritz, in Lower Lusatia, transmitted to the Economical Society of Leipzig, an excellent hat, manufactured of one part of this vegetable substance, and two parts of hare's fur. He assured the Society, that the mixture not only

worked admirably well under the bow, but likewise formed a complete union when felted. A proportionate addition of Spanish wool, would probably afford a still better material, and produce hats sufficiently fine and elastic.

Professor *Forster*, of Halle, in the year 1790, sent to the society above-mentioned, a specimen of blotting paper made of a mixture, consisting partly of the villous hair of the cats tail, and partly of the coarsest linen and woollen rags employed for that purpose; but Dr. *Bohmer*, whose botanical works we have frequently quoted, asserts, that a good writing paper has been manufactured of the dry down obtained from those catkins, after they had been, in a manner, parched by the heat of the sun: and that such paper was peculiarly fit for drawings and paintings.

CAULIFLOWER.—A variety of Sea-cabbage, a native of the Isle of Candia, but, of late years, has been so far improved in Britain, as to exceed in size and flavour, those flowers which are produced in most parts of Europe.

Useful Properties.—Among the succulent plants produced in our climate, this doubtless is one of the most nourishing, and likewise the best adapted to tender organs of digestion, especially in valetudinarians and invalids: such persons, however, ought to eat it with the addition of some aromatic spice, such as pounded cardamoms, or caraway—or a small portion of bread.

CELERY.—Originally called *Smallage*, or *Parsley*, the root, is thick and fibrous in its wild state; its bushy stalk attains the height of two or three feet, and bears yellow flowers in August: it grows in ditches and salt-marshes, is fetid, acrid and noxious; but, when cultivated in dry ground, it is divested of those qualities, and then called Celery.

Nature and Properties.—When distilled, the seeds of both the wild and cultivated Celery, produce an essential oil. The roots of the former are eaten by sheep and goats, but cows and horses refuse them. As an article of food, the Celery is well known, but is said to be hurtful to persons subject to nervous complaints. It is, however, considered as an excellent antiscorbutic.

The bulbous root of *Celeriac* is much esteemed on the Continent, where it is preserved in sand for the winter, and eaten chiefly as salad. For this purpose, it is cut in slices, and soaked a few hours in vinegar; by such simple preparation, it becomes as mellow as a pine-apple, and affords a delicious, and very nourishing repast; hence it is much relished by invalids, or the aged. We doubt, however, whether it deserve the great character it has acquired among the French and Germans, for its bracing and restorative virtues, in cases of general relaxation and nervous debility.—*Dom. Enc.*

CHAMOMILE.—A genus of plants comprising twenty one species; of these five only are indigenous, the principal of which

are the three following : 1. The common Chamomile, also called Sweet scented, or Roman Chamomile, growing in sunny meadows and pastures, most plentifully in Cornwall, and also in other parts of England. Its creeping stalks shoot forth branches, and these again strike root : the leaves and flowers have a strong, though not ungrateful, aromatic smell, and a bitter, nauseous taste. They afford an essential oil. An infusion of the flowers taken lukewarm, is antispasmodic ; and cold, a stomachic. Dr. *Withering* asserts, that the powdered flowers have cured agues, even when bark had failed, but ought to be taken in considerable doses ; we suppose from one to two drams every other hour, to be repeated six or eight times during the remission of the paroxysm. Both the leaves and flowers of the chamomile possess remarkable antiseptic properties, and are therefore used in fomentations, and poultices. From their antispasmodic powers, they are frequently found to relieve pain, especially in complaints of the kidneys, and in childbed.

2. The fetid Chamomile, May-weed, or Mathen ; which grows in corn-fields, on road sides, and borders of dung-hills : it is a troublesome weed in tilled lands, very ungrateful and disagreeable to bees, and not relished by either horses, cows, sheep, goats, or swine ; but toads are said to be fond of it. By its uncommon acrimony, it frequently blisters the skin of reapers. Notwithstanding its very pungent taste, it has often been used with advantage in diseases peculiar to females.—*Bechstein*.

In dyeing, a decoction of the whole plant, when in flower, imparted a permanent citron colour to wool prepared in a solution of bismuth.—*Dambeckney*.

3. The Ox-eye Chamomile, grows on high sunny pastures, but is rarely to be met with in Britain. Mr. *Dichson* found it in Essex. Formerly it was discovered by *Ray*, on a bank near the river Tees, not far from Sugburn, Durham. This plant has doubly winged, serrated leaves, cottony underneath, and its stem supports a corymbus, or flowers progressively standing each on a proper foot stalk ; attains the height of about eighteen inches ; spreads out its branches ; and bears yellow blossoms in July and August. It is eaten by horses and goats ; but not fondly by sheep, and refused by cows and swine.

CHAMOMILE, THE WILD.—See Common *Pteris*.

CHARLOCK.—*Wild Mustard*, *Charlock*, or *Corn Cale*, an indigenous plant, which grows in corn and turnip fields. It is a very noxious weed, especially among turnips, to which it bears so great a resemblance, that it is said, instances have occurred of licensors taking up a whole crop of turnips, and leaving the Charlock. To obviate this evil, it has been recommended to turn a flock of sheep into a field abounding with this weed ; for, during the early period of its growth, they will prefer it to the

crop. Some lands are exceedingly liable to be over-run with the Charlock, particularly when they have been manured with cow-dung alone, as that is very favourable to its growth. Experienced farmers, in general, are so well convinced of this effect, that they always mix horse-dung with that of cows, for manuring arable land. When barley is infested with Charlock, to such a degree as to endanger the crop, that weed has been mowed down with success in the month of May, while in flower; but care should be taken to cut off, at the same time, the tops of the barley leaves. Thus, the latter will shoot up above the weed; and it is a remarkable fact, that *four quarters* of grain have been obtained from such land as, without this expedient, would have been almost unproductive.

The most effectual method of extirpating the Charlock is, to sow arable land with grass-seeds, and thus convert it into pasture; because the former never grows where a coat of grass covers the ground. When this plant arrives at maturity, it produces yellow flowers, and turgid, angular pods, containing seed, which is commonly sold under the name of *Durham Mustard seed*.

Nature and Use.—In Ireland, and the northern parts of Europe, this plant is boiled, and eaten in the same manner as cabbage. It is also relished by cows, goats, and swine; sheep are extremely fond of it; but it is generally refused by horses. Bees derive much nourishment from its flowers. Instead of being spuriously vended for *Durham Mustard*, the seeds of this plant might be rendered more profitable, by expressing the excellent oil with which they abound. This has been attempted with success, in Germany; for we are informed by *Bechstein*, that he obtained thirty pounds of pure lamp-oil, from 100 pounds weight of the seed.—*Dom. Enc.*

CHARLOCK, THE JOINTED.—Or *White Flowered*, see *Wild Radish*.

CHEESE RENNET,—Or *Yellow Bed-Straw*, a native plant growing on the sides of fields and roads. It has a firm, erect, square stem; short branches, terminating in spikes of small yellow blossoms, appearing in July and August.

Medicinal Virtues.—The flowers of this plant coagulate boiling milk; and it is, we apprehend erroneously, supposed that the best Cheshire Cheese is prepared by their influence. When boiled in alum water, says Dr. *Withering*, they tinge wool yellow. The roots dye a very fine red, not inferior to madder. They also impart a similar colour to the bones of animals fed upon them. According to the experiments related by *Succow*, the German chemist, a decoction of the whole plant, when in blossom, on adding vitriol of iron and spirit of salt, produced a fine green colour, which was likewise imparted to wool and silk. Sheep and goats eat the yellow bed-straw; but it is refused by

horses swine and cows. In France, the flowers are prescribed in hysteric cases. The juice of the plant has been successfully used in Britain; and, from an account given in the *Edinburgh Medical Commentaries*, it appears to be an efficacious remedy for the cure of scorbutic complaints.

CHERRY-TREE.—A species of Plum-tree, and a genus of plants, comprising fifteen species, originally natives of Persia; whence they were introduced into Italy, as well as other parts of Europe; and are supposed to have been brought from Flanders into England, in the reign of *Henry the eighth*.—The principal species growing in our climate are the following:

1. **THE BIRD CHERRY, or Wild Cluster Cherry**, a shrub which flourishes wild, on almost any soil, if not wet, (*Withering*;) and is found chiefly in hedges and woods. It bears topping, and does not stifle the growth of grass. Sheep, goats and swine eat the leaves, but they are not relished by cows, and refused by horses. Its fruit is nauseous; but, when bruised, and infused in wine, or brandy, it imparts an agreeable flavour. Its smooth and tough wood is made into handles for knives and whips. The inner bark is said to afford a fine green colour, on boiling it with alum.

Bechstein observes, that this dwarf tree, when transplanted into a rich soil, attains the height of forty feet, and two feet in diameter; and that it thrives most luxuriantly near hedges and waters. As its abundant white blossoms, in May, present a picturesque view, it deserves to be cultivated on the borders of parks and gardens.—*Holmberger*, a Swedish author, remarks, that the dried kernels of this cherry are equal in taste and flavour to almonds, and yield, on expression, a fine and plentiful oil.—A decoction of the berries is sometimes successfully given in the dysentery.

2. **THE COMMON WILD CHERRY-TREE**, which is frequently found in woods and hedges, but is probably produced from the stones of the garden-varieties, dropped by birds. It delights in a sandy soil, and an elevated situation, and often grows from fifteen to thirty feet in height, but is seldom more than nine inches in diameter. It flowers in the month of May; its sour fruit is eaten by country people, either fresh or dried, and is frequently infused in brandy, on account of its aromatic flavour.

Physical Properties.—Cherries may be divided into sweet, sub-acid, and pulpy. The first kind, though the most palatable, are the least wholesome, as they readily ferment, and produce flatulency in weak stomachs: the second are the most antiseptic; and the third the most nourishing, but digested with some difficulty. Hence we would preferably recommend the sub-acid cherries, as an excellent article of domestic medicine in the true scurvy, in putrid fevers, and the dysentery; as likewise to those

persons, who are liable to obstructions in the alimentary canal. With this intention they may be eaten in considerable quantities, and frequently from half a pound to a pound each time, but particularly on an empty stomach. Nor will they be found less salutary to constitutions whose bile is vitiated, whose stomach is troubled with foul eructations, and who are afflicted with an offensive breath; all such persons should eat them freely. For similar reasons, *dried Cherries* form an excellent article of diet, in acute or inflammatory disorders; where they should be used both in substance, and in decoctions, which are equally cooling and antiseptic.

CHERVIL.—A genus of plants comprising seven species, two of which only are indigenous, namely,

1. *THE sylvestre*, or **WILD CHERVIL**, or Smooth Cow-parsley, or Cow-weed Chervil, which thrives in hedges, orchards, and pastures. It has a woolly striated stem, erect umbels, and white flowers, which blow in the month of May.

The umbels of this plant afford an indifferent yellow dye; the leaves and stems a beautiful green. Its presence indicates a fruitful soil, but it ought to be eradicated from all pastures early in the spring, as cows, rabbits, and asses, are the only animals that will eat it. *Linnaeus* informs us, that the roots, when eaten as parsnips, have been found poisonous; yet, according to Mr. *Curtis*, they were in some parts of Britain, during times of scarcity, eaten as a pot-herb.

2. **THE ROUGH COW PARSLEY**, or rough Chervil, growing in hedges, and bearing flowers in the months of July and August.—It possesses no peculiar properties.

CHERVIL, THE NEEDLE.—Or *Shepherd's Needle*. See *Sweet Cicely*.

CHERVIL, THE GREAT.—Or *Venus Comb*. See *Common Shepherd's Needle*.

CHESNUT.—A species of the Beech-Tree, a genus of plants, comprising three species. It flourishes on poor, gravelly, or sandy soils, and will thrive in any but moist or marshy situations. Those trees, however, which are intended for fruit, should be raised in nurseries from nuts, removed at least three times, and have the tap-roots cut off, in order to facilitate their growth.

Nature and Use.—All writers agree that the wood of the Chesnut is peculiarly excellent for casks, as it neither shrinks, nor changes the taste, or colour of the liquor. It is also converted into various articles of furniture, and when stained, may be made to resemble in beauty and colour the finest mahogany; this improvement is reflected, by rubbing it over, first with alum water, then laying on with a brush a decoction of logwood chips: and lastly, a decoction of Brazil-wood. Besides these various uses, to which this tree may be applied, its fruit affords an agree-

able addition to our winter desert. If properly managed, a sweet and nutritious bread may be prepared of it, especially when mixed with a small proportion of wheaten or other flour. In its wild state, it is called the *wild chesnut*, and, independently of its beauty as an ornamental tree, its mealy nuts supply not only an excellent food for fattening deer and hogs, but are likewise of great service in whitening cloth, and the manufacture of starch.

CHICKWEED.—A genus of plants, comprising five species, of which that most generally known in England is the Common Chickweed.

It grows in almost every situation, whether damp, or even boggy woods, or the driest gravel walks in gardens. In its wild state, this plant frequently exceeds half a yard in height, and varies so much from the garden Chickweed, that if a person were acquainted only with the latter, he would with difficulty recognize it in the woods. On account of its upright flowers, which blow from March to October, it may be considered as a natural barometer; for if they are closed, it is a certain sign of approaching rain; while, during dry weather, they are regularly open, from nine o'clock in the morning till noon.

This species affords a striking instance of what is called the *sleep of plants*. Every night the leaves approach in pairs, so as to include within their upper surfaces, the tender rudiments of the new shoots: and the uppermost pair, but one, at the end of the stalk, is furnished with longer leaf-stalks than the others, so that it can close upon the terminating pair, and protect the end of the branch.

Swine are extremely fond of Chickweed, which is also eaten by cows and horses, but is not relished by sheep, and is refused by goats. It likewise furnishes a grateful food to small birds, and young chickens; its tender shoots and leaves, when boiled, can be scarcely distinguished from early spinach, and are in every respect as wholesome. They are reputed to be refrigerating and nutritive food for persons of a consumptive habit.

CHRISTOPHER, THE HERB.—Is an indigenous plant growing in woods and shady places, and is found chiefly near Malham-Cove, Clapham, Thorpe Arch, and other places in the Northwest of Yorkshire. It is perennial, attains the height of about two feet and a half; flowers in the months of May, or June; and produces black, shining, pulpy berries in autumn, about the size of peas, which are considered as poisonous.

Nature, &c.—On account of its fetid smell, this plant, is said to be frequented by toads; it is, nevertheless, eaten by sheep and goats, but refused by cows, horses, and swine. The dry leaves are extremely sharp and rough, so that they may be usefully employed for polishing hard wood and ivory.—The berries

boiled with alum, yield a deep black dye.—*Willieh's Domestic Encyclopedia*.

CICELY, THE SWEET.—Or *Great Chervil*, or *Shepherd's Needle*, is a native plant, growing in orchards, hedges and waste places, but generally near houses; and is chiefly found in the counties of Westmoreland, Cumberland, Lancaster, and Worcester. It is perennial, produces white flowers, which blow in the month of May or June, and seeds of a sweet and agreeable taste.

Nature, &c.—The whole plant has an aromatic scent, and its seeds are used in the north of England, for polishing and perfuming oak floors, and furniture; they also yield an essential oil, similar to that obtained from anise-seeds.—The fresh leaves and stalks of the Sweet Cicely impart to wool a fine citron yellow dye, when prepared in a solution of bismuth; as asserted by *Damburney*.

CINQUEFOIL.—A genus of plants, comprising thirty-five species, of which only eight are indigenous; the principal of these are:

1. The **SHRUBBY CINQUEFOIL**, which is set with fine silvery hairs, has reddish stems, and yellow blossoms, that appear in the month of June; the flowers are conspicuous for their number and beauty. This plant has been usefully employed on the Continent, in tanning calf-skins; and it is also eaten by cows, horses, goats, and sheep; but is refused by hogs.

2. The **WILD TANSEY**, or *Goose-grass*.—See *Silver Weed*.

3. The **HOARY CINQUEFOIL**, which grows on meadows and pastures, in a gravelly soil, and flowers in June.—The whole may be used for tanning, and dyeing black colours; as it is not touched by cattle.—*Bechstein*.

4. The **COMMON CREEPING CINQUEFOIL**, which grows in a moist clayey soil of meadows, pastures, and by road-sides. It is perennial, and flowers from June to August.—A fine-grained calf-leather has, likewise, been prepared from this plant, on the Continent.—The red cortical part of the root is mildly astringent, and antiseptic; a decoction of it has been found an excellent gargle for loose teeth, and spongy gums.

CINQUEFOIL, the MARSH.—See *Purple Marshlocks*.

CLARY.—A genus of native plants, producing two species:

1. The **MEADOW CLARY**, which grows in dry pastures, and is found principally in the counties of Surrey and Sussex. It is perennial; flowers in the month of June and July; and its leaves are slightly aromatic. When soaked in water for a few minutes, its seeds acquire a mucilaginous coat, somewhat similar to the spawn of frogs. *Bechstein* observes, that this plant, when used as a substitute for hops, imparts an agreeable flavour to beer and wine; but, at the same time, renders them more in-

toxicating, and pernicious to health. It may, however, be more usefully employed in tanning leather, and dyeing a permanent dark brown.

2. The Wild ENGLISH CLARY, which grows in gravelly, calcareous soils, and blows from June to October. This species is smaller than the preceding, but more aromatic. Its seeds, when immersed in water, possess the property of the pratensis, in a superior degree.

Both the leaves and seeds of this plant have a warm, bitterish, pungent taste, and a strong, though not disagreeable, odour. They are principally recommended in hysteric disorders, and in flatulent cholics.

CLEAVERS.—Or *Clivers*. See *Goose-Grass*.

CLOUD-BERRY.—See *Bramble*.

CLOVE-PINK.—Or *Carnation*, belongs to a genus of plants, comprising twenty-eight species; of which six only are natives. The Carnation in its wild state, grows on old walls, and is found among the ruins of ancient castles. It usually flowers in the month of June and July.

Although Clove-Pinks will thrive in almost any garden soil, yet they delight most in those of a light loamy nature. They are propagated chiefly by seed, in March or April, and generally come up in a month after sowing. When properly weeded and watered till July, they will be fit for transplanting into nursery beds, which should be about three feet wide, and in an open situation. In these beds, the plants are to be *pricked* during moist weather, at the distance of four inches from each other, and moderately watered; which should be occasionally repeated, till they have taken good root. In September they will be fit to be finally transplanted into other beds of good earth, about three feet wide, in rows nine inches asunder. Here they are to remain till spring; but if the winter prove very severe, they should be sheltered with mats. In the vernal season, they ought to be carefully weeded with a hoe, and the flower-stalks must be tied up to sticks, in order to prevent their drooping, by which their growth would be retarded.

Medicinal Properties.—Clove-Pinks have a pleasant aromatic odour, and are said to be cardiac and alexipharmic. A decoction of these flowers has been successfully used in malignant fevers; and, as *Paulli* asserts, they raise the animal spirits, quench thirst, and powerfully promote both perspiration and the secretion of urine; without occasioning great irritation.

CLOVER.—A genus of plants, comprising fifty-five species, of which only sixteen are indigenous; of these the following are the principal:

1. The COMMON CLOVER, which is frequently found in meadows and pastures. This species thrives best on a firm, heavy.

soil, and is raised from seed, which is usually sown between the months of February and May, in the proportion of ten or fifteen pounds per acre. If it be often sown on the same land, the crop will fail; it should therefore be changed for Trefoil or Lucerne.

Common Clover is usually sown together with wheat, in the spring, as well as with barley and oats; but experienced farmers generally prefer wheat; as, in dry seasons, the Clover frequently overpowers the oats or barley; and, if it be sown late in order to obviate this evil, it often fails, and the crop is lost for that season. It is also mixed with rye-grass; and, if mown when the latter is beginning to flower, the lower growth is considerably increased, and a great quantity of excellent grass is obtained. Another advantage arises from this expedient; for, however severe the frost may be, the Clover will be completely screened from its piercing effects by the rye-grass.

The common Clover is in flower from May to September, and produces seeds, which are known to be ripe by the stalks and heads changing their colour. Cattle, sheep, and pigs are exceedingly fond of this species, and frequently eat of it so eagerly as to become *hoven* or *blown*. That disorder, however, may be prevented by constantly moving them about the field, when turned in, so that the first ball may sink into their maw before the next be deposited. Or, if cattle be turned into clover belly-deep, they will, it is said, receive no injury by eating too freely of it; as it is pernicious only in its earlier state.

In times of great scarcity, bread has been prepared from the flowers of the Common Clover. In Sweden, the heads are employed for dyeing wool of a green colour; and if mixed with alum they yield a light, if with copperas, a dark-green colour.

2. The RED PERENNIAL CLOVER, which is found in pastures, hedges, and on the sides of woods. It thrives on a rich soil, whether clay or gravel, and will even grow upon a moor, if properly cultivated. It grows spontaneously on marl-land; but is usually reared from seed, which should be put in the ground from the middle of April to the middle of May. This species as well as the common Clover, is frequently sown together with flax, on a soil highly cultivated for that purpose; and, as the latter is a forward plant, it is generally removed so early as to allow the clover time for growing. Red Clover is sometimes sown by itself; but this practice is by no means to be recommended; for the crop is liable to be lost, unless it be sheltered in its infant state, during the severity of the winter.

3. The HOP CLOVER, or *Hop Trefoil*, which grows in dry meadows and pastures. It flowers in the months of June and July. When mixed with common Clover, on light land, it makes a most excellent fodder. This plant is variously called Back-Grass and Nonsuch.

4. The **WHITE CLOVER**, which abounds in meadows and pastures. It also delights in light land, where it will thrive luxuriantly, if frequently rolled. It is usually sown with red clover, rye-grass, or barley, and is in blossom from May to September. It produces the sweetest hay on dry land, especially when mixed with hop-clover and rye-grass; and possesses this advantage over the common clover, that it will admit of being irrigated. Horses, cows and goats eat it, but sheep are not fond of it, and hogs totally refuse it.

CLUB-MOSS.—A native genus of plants, comprising six species, the principal of which are;

1. The **Common CLUB-Moss**, which grows in dry mountainous places, heaths, and woods. It is principally found in the north of England; produces a prostrate creeping stem, from one to three yards in length; flowers from July to August, and bears seeds, which, if infused in ropy wine, will, in a few days restore it. When thrown into a fire, these seeds emit a bright flash, and also possess the peculiar property of being almost impervious to moisture, so that if they are scattered on a basin of water, the hand may be immersed to the bottom, without being wetted. In the north of Europe they are pulverized, and applied externally for curing chaps in the skin and other sores. Beautiful mats, or summer carpets, are manufactured of the stalks of this plant, in Sweden.

2. The **Fir-leaved CLUB-Moss**, which is very common on the mountainous heaths in the Highlands of Scotland, the Hebrides, and in the northern parts of England. This plant rises from two to five inches in height, and is in blossom from April to October. In the island of Raasay, in Rossshire, and likewise in some other places, the inhabitants employ it as a substitute for alum, to fix the colour in dyeing. The Swedes make a decoction of it, and apply it to hogs and cattle, for the destruction of vermin. The Highlanders also occasionally take an infusion of it, as an emetic and cathartic, but it operates violently; and unless taken in a small dose, causes giddiness and convulsions.

CLUB-RUSH.—A native genus of plants, consisting of 12 species; the following are the principal;

1. The **Marsh Creeping CLUB-Rush**, which thrives on the banks of rivers, ponds, and ditches, and is chiefly found in the western parts of England. It is perrennial, grows from six inches to two feet high, and flowers in the month of June or July. Hogs eagerly devour the roots of this species when fresh, but will not touch them when dry. They are also eaten by goats and horses but refused by cows and sheep.

2. The **BULL-Rush**, which see.

3. The **Salt-marsh CLUB-Rush**, which is found on the sea-coast near Yarmouth, and also near Shirley-wych, Stafford. It

is perennial, and flowers in the month of July or August. Cows eat this plant; and its tuberous roots, when dried and ground to powder, have, in times of scarcity, been used as a good substitute for flour.—*Dom. Enc.*

COCKLE.—See *Corn-Cockle*.

COCK'S-FOOT.—Or *Cock's-foot grass*, a genus of plants comprising seven species; of which two are indigenous:

1. The Smooth COCK'S-FOOT GRASS, which grows in marshes, and on the sea-coast. It is principally found in the eastern and southern parts of England, is perennial, and flowers in the month of August

2. The Rough COCK'S-FOOT GRASS, which thrives in pastures and in shady places, under the drippings of trees. This plant is also perennial, is in flower from June to August, and grows to the height of four or five feet, when seeding. It is somewhat coarse, but very luxuriant, especially in the leaves, which are often two feet long: they are eaten by horses, sheep, and goats, but particularly by cows, which are extremely fond of them, when growing on a rich soil. Dogs and cats instinctively search for and swallow this herb, when they incline to vomit, or to envelope the splinters of bones collected in their stomach.

COCK'S-HILL AD.—See *common Saintfoin*.

COLT'S-FOOT.—A genus of plants forming 21 species, of which only three are natives:

1. The Common COLT'S-FOOT, which grows in pastures, in moist, stiff, clayey soils, and also on lime-stone rubbish. It is mostly found in fields that are over-cropped, or exhausted, and often severely exercises the patience of the farmer. It may be eradicated by ploughing up the soil, carrying the plant away when rooted out, and laying the fields down to grass. Hog's dung has also been employed with success for this purpose; and if spread on the land in the proportion of 15 or 20 loads per acre, it will certainly extirpate this troublesome weed. Colt's-foot produces yellow flowers that are in bloom in the month of March or April, and are soon succeeded by large roundish leaves, which have a bitterish, mucilaginous taste, and constitute the principal ingredient in British Herb Tobacco. They are eaten by sheep, goats, and cows, but refused by horses and hogs. Formerly they were much used in coughs and consumptive cases; and have also been found of considerable service in scrophulous complaints; a decoction of these leaves having sometimes succeeded, where sea-water had failed.

2. The BUTTER-BURR, which see.

3. The Long-stalked COLT'S-FOOT, which possesses no peculiar properties.

COLUMBINE, THE COMMON.—A native plant, growing in hilly woods and thickets. It is perennial, and blooms in July.

The beauty of its flowers, and their uncommon diversity, both in shape and colour, have introduced this plant into gardens. It is eaten by goats, but sheep are not fond of it, nor is it relished by cows, horses, and hogs.

COMFREY, THE COMMON.—A native, perennial plant, which grows about two feet high, and is found on the banks of rivers, and wet ditches; and produces yellow white flowers, in the months of May and June. It is eaten by sheep and cows, but horses, goats, and hogs refuse it. The leaves of this plant impart a grateful flavour to cakes and panada; the young stems, when boiled, are excellent and nutritious eating. A decoction of the stalks with leaves and flowers, gives to wool prepared by a solution of bismuth, a fine and permanent brown colour.

But the most useful part of the Comfrey, is its viscid and mucilaginous root, which may be classed among the neglected treasures of the vegetable kingdom. These roots are, at present chiefly employed by colour-makers, who, by means of a decoction made of them, extract the beautiful crimson colour from *gum-lac*. The natives of Angora, who possess the finest breed of goats in the world, prepare from the Comfrey-roots a kind of glue, that enables them to spin the fleece into a very fine yarn, from which camblets and shawls are manufactured. The Germans have lately employed the same mucilage for correcting the brittleness of flax, and roughness of wool in spinning: this preparation neither soils the fingers nor the yarn, and may be preserved in a fresh state for many days, in close wooden boxes.

Tabernamontan, in his *German Herbal*, relates a curious fact, which, if not exaggerated, would be of great value in the important process of tanning, and rendering leather *water-proof*. He boiled, in a pailful of water, ten pounds of the fresh root, dug out in November, till one half of the liquor was evaporated; with this decoction, when cool, he repeatedly dressed the leather which, thus prepared, became not only more durable than by any other method, but it always remained pliable and elastic.—*M. Dorffurth*, an apothecary of Wittenberg, in Germany, also employed these roots in his experiments on tanning, with considerable success. After drying, and reducing them to powder, or cutting the fresh roots into small pieces, he infused them in a proportionate quantity of water, frequently stirring the mass, till it acquired the consistence of treacle. It was then allowed to stand at rest several days, till the fibrous and woody part had subsided, when the clear fluid was poured off, or passed through a basket lined with straw. By dropping diluted oil of vitriol into this liquor, he precipitated the mucilaginous part, which was again filtered and rendered fit for another process of tanning. after depriving it of its acidity, by means of a lye made of common pot-ash.

CORIANDER.—CORN-COCKLE.—CORN-FLAG. 47

Another German writer, *M. Reuss*, mentions the root of the Comfrey among those plants, from which good starch and hair-powder may be prepared.

CORIANDER, THE COMMON.—Is an annual plant, growing in corn-fields, on road-sides, and dunghills. This vegetable is raised from seed, generally sown in the month of March, in the proportion of 14lbs. to an acre. They produce whitish flowers, in June, or July, and contain two seeds.

Nature and Use.—The leaves of this vegetable have a strong, disagreeable smell; the seeds possess a pleasant flavour; and, when encrusted with sugar, are sold by the confectioners, under the name of *coriander comfits*. They have been recommended as carminative and stomachic; but certainly possess intoxicating, if not deleterious properties: Six drams of them, however, have been taken at one dose, from which *Dr. Withering*, did not observe any remarkable effect.

CORN-CALE.—See *Charlock*.

CORN-COCKLE.—Is an indigenous, annual plant which grows in corn-fields, and bears purple flowers in the month of June or July. It is very prolific, and produces a great number of pods, each of which contains from twenty to thirty seeds, somewhat resembling those of the turnip.

Nature and Peculiarities.—The seeds impart a strong taste and an unwholesome quality to the bread baked of corn mixed with them: such grain ought, therefore, to be employed in distilleries, or the manufacture of starch.

There is a variety of this species, which produces similar, but smaller seeds than the former, and exhibits a peculiar mode of vegetation, being found within the wheat-ear, one side of which is filled with good grain, and the other with a spurious one, produced by this weed. Hence, husbandmen have given it the significant name of *ear-cockle*. It is by no means so common as the former variety, but is generally attributed to bad husbandry, by which the land is exhausted of its nutritious qualities, and weakened to such a degree as to be prevented from bringing the wheat to perfection; because this plant is never found on lands that are well cultivated, and properly managed. It is eaten by horses, goats, and sheep.

CORN-FLAG, THE COMMON.—A hardy, indigenous plant, growing in corn-fields, from one to two feet high: producing red and white, or purple flowers, in May and June, which are succeeded by abundance of roundish seeds, in August.

Nature and Use.—The small, round, tuberous root is internally yellow, and reputed to be an excellent vulnerary: but this neglected vegetable is more important on account of its mealy nature. *Pliny* probably alludes to it in the 21st Book of his *Natural History*, where he observes, that the root has a sweet taste;

and, when boiled, not only imparts to bread an agreeable flavour, but increases its weight. The blossoms of this plant supply bees with honey.

CORN-FLOWER.—See *Blue Bottle*.

CORN-SALAD.—Or *Lamb's Lettuce*, an annual indigenous plant growing in corn-fields, producing white-reddish flowers from April to June. It is eaten by cattle, and its young leaves are cut and used in spring and autumn as a salad, being esteemed little inferior to young lettuce. Sheep and canary-birds are equally fond of this vegetable.

COTTON-GRASS.—Is a perennial, native genus of plants, consisting of five species, the principal of which are the following :

1. The Common COTTON-GRASS, moor-grass, moss-crops, or many-headed cotton-grass. It is found chiefly on marshes and bogs in the county of Stafford, on Birmingham-heath, and near Newport, Shropshire.

Use &c.—In the Island of Skye, in Scotland, this plant is useful to support cattle in the earlier part of the spring, before the other grasses are sufficiently grown. The poorer class of people stuff their pillows with the woolly down of this plant, and also employ it in making wicks for candles.

2. The broad-leaved COTTON-GRASS, which grows in the marshy parts of the counties of Northampton; Bedford, near Dunstable; York, Cumberland; and very common in Scotland. Large tracts of ground are sometimes covered with the white downy fibres of this plant, which flowers from April to June; and subsequently represents the snowy field of winter: its presence, however, indicates a soil productive of *turf*, or peat.

Nature and Use.—Neither cattle nor sheep relish this vegetable, the hairy seed-vessels of which vitiate the hay, insomuch that large conglobate masses have often been found in the stomachs of animals, that died in consequence of feeding on such provender.

Hence the necessity of collecting the down of the broad-leaved cotton-grass, both for preventing the injurious consequences to cattle, and converting it to the following useful purposes. The late *Dr. Gluditsch*, of Berlin, made a variety of curious experiments with this woolly substance; and found, that in combination with either sheep's wool, or cotton, it could be spun into a very strong and uniform yarn, from which were produced durable gloves, stockings, stuffs, and excellent cloth. He admits, however, that this downy material is more brittle than the fibrous integuments in which the seeds of the sweet, or bay-leaved willow, are enveloped. Nevertheless, we have recently had an opportunity of ascertaining, and think it our duty to announce it to the public, as a *fact* worthy the attention of

manufacturers, that both substances before-mentioned, may be prepared by a simple chemical process, in such a manner as to render them eminently fit for being mixed with *improved* animal wool, as well as cotton and silk, nay, even the refuse of flax and hemp. Clothiers, serge and stocking-makers, hatters, and all other artisans employed in this branch of staple manufactures, may perhaps find it their interest to obtain farther information on this important subject.

COUCH-GRASS.—Or *Couch-Wheat*, see *Dog-Grass*.

COW-PARSNIP.—Or *Hog-weed*, a native genus of plants, producing two species.

1. The Common Cow-PARSNIP, which is found in hedges, meadows and pastures: It is biennial, and bears whitish flowers, which blow in the month of July; its stalks grow from three to four feet high.

Use, &c.—In Poland and Lithuania, the peasants prepare a liquor from the leaves of this plant, which, after undergoing fermentation, is brewed, and drank instead of beer. As this beverage is perfectly harmless, it might with advantage be substituted for some kinds of ale, in which the most pernicious substances are infused, with a view to *give it a head*. The inhabitants of Kamtschatka peel the roots, which afford a nutritious and wholesome food. An ardent spirit is also distilled by the Russians and Poles from the medullary substance of the stalks, and sometimes from the whole branches, which are first fermented in water with the great bilberries, from which they obtain a liquor of considerable strength. It is more agreeable to the palate than the ardent spirits distilled from corn; though we must observe, on the authority of Dr. Bohmer, that it is a still more intoxicating and pernicious liquor than *whisky*. Hogs, rabbits, and asses, are extremely fond of the leaves, which are also eaten by cows, goats, and sheep, but not relished by horses.

2. The Narrow-leaved Cow-PARSNIP, which is found in woods, and flowers in July. It has no peculiar properties.

COW-PARSLEY.—Or *Cow-weed*, see *Chervil*.

COWSLIP, THE COMMON.—Or *Paige*, or *Cowslip-prinrose*, a native perennial plant, growing in meadows and pastures, on a loamy or clayey soil. It produces sweet scented yellow flowers, which appear in April, and are used for making Cowslip-wine, or balsamic tea. Its roots have a fine odour, similar to that of anise: and give additional strength to ale or beer, when immersed in the cask. The leaves and flowers of this plant are excellent food for silk-worms, which are extremely fond of them; they are also eaten as a pot-herb, and in salads. Cattle eagerly feed on the leaves.

COW-WHEAT, a genus of native, annual plants, comprising four species, of which the following are the principal:

1. The Purple Cow-WHEAT, which grows in corn-fields, and is chiefly found in the county of Norfolk. It bears flowers of a yellow dusky purple, which blow in the month of July, and are succeeded by yellowish seeds.

Nature and Use.—The seeds, when ground with corn, impart a dusky, greyish cast, and a bitter flavour to the bread; but do not render it unwholesome. A decoction of the flower-spikes produces a tolerably durable blue colour, and, with the addition of the fixed vegetable alkali, a purplish red. *Cronstedt*, the Swedish mineralogist, obtained a fine blueish colour from the stalks alone; but none from the leaves and flowers. The plant is eaten by cows and goats, but refused by sheep.

2. The Common Yellow Cow-WHEAT, which grows in woods and thickets, especially on clayey soils. Its blossoms are of a deep yellow colour, with white tubes, and appear in July or August.

Nature and Use.—Hogs eagerly eat the seeds, but reject the plant, which is also refused by horses. It is, however, eaten by sheep and goats, and particularly by cows, which are extremely fond of it. Where this plant abounds, the butter is yellow, and uncommonly good.

3. The Wood Cow-WHEAT, which is very rare, being found only in some woody, shady places, in the hilly parts of Scotland. Its blossoms are entirely yellow, and flourish from June to August; but have not the white tube of the preceding species, with which it is frequently confounded. It is eaten by cows, sheep, and goats; if it be given them in abundance, they will thrive remarkably, and soon grow fat.

COX-COMB.—See *Yellow Rattle*.

CRAB-TREE.—Is an indigenous plant, growing in woods and hedges; it flourishes better on declivities and in shady places, than in open, exposed situations, or on boggy soils. Its blossoms are white, and appear in the month of May.

This is the parent-stock, from which the numerous varieties of the apple are obtained, and on which the better sorts of them are grafted; because its roots are neither killed by frost, nor eaten by field-mice. Grass, and even corn will grow beneath it. The wood of the crab-tree is tolerably hard, turns clean on the lathe; and, when made into cogs for wheels, acquires a polish, which renders it very durable. The acid juice of the fruit is commonly termed *verjuice*, and is much employed in recent sprains, and in other cases, as an astringent or repellent. This fruit is eaten by horses, cows, sheep, goats, and particularly by hogs, which are extremely fond of it.

Crab-trees abound especially in our forests, and their fruit furnishes abundance of fruit for deer, in the latter part of autumn, when grass begins to fail; and in winter they brouze on its

branches, which are cut down for that purpose. As this species quickly attains its growth, it deserves to form a part of every plantation; and we have only to regret, that it is not more generally cultivated, as it will in a short time amply compensate the trouble and expence bestowed on setting it.

In dyeing, the bark of the crab-tree has been employed for extracting a yellow, and especially a citron colour: *Dambourney* relates, that the dry shavings of this wood imparted a fine chestnut-brown to wool prepared by a solution of bisinuth.

CRANBERRY.—See *Bulberry*.

CRESS.—Or *Cresses*, a genus of plants, consisting of forty one species, eight of which are natives; the principal of these are the following:

1. The Common WATER-CRESSES, which is found in springs, brooks, and rivulets. It is perennial, and produces white flowers that are in bloom in June or July. The leaves have a moderately pungent taste, and penetrating smell, somewhat similar to, though much weaker than that of mustard seed.

Medicinal Properties.—Water-Cresses are universally used and eaten as an early and wholesome spring salad. Being an excellent antiscorbutic and stomachic, they are nearly allied to scurvy-grass, but do not possess so great a degree of acrimony. They are also supposed to purify the blood and humours, and to open visceral obstructions.

2. The Radish WATER-CRESS, growing in watery places, and on the banks of rivers. It is perennial, and produces yellow flowers, which blow from June to August.

Use.—Its roots may be used as a substitute for common radishes. Sheep and goats do not relish this plant, and it is never touched by cows.

3. The Flix-weed WATER-CRESS, which is found on old walls, and among rubbish. It is annual, and bears yellow flowers, in July, which are succeeded by long, stiff, crooked pods, containing yellow seeds; these remain in their capsules the whole winter, and not only support the small birds during that inclement season, but have occasionally been employed with success, as a vermifuge. The plant is eaten by cows and sheep, but is not relished either by horses, goats, or hogs.

CROCUS.—See *Saffron*.

CROSS-WORT.—Or *Mugweed*, an indigenous perennial plant growing on hedge-banks, and in meadows. It produces yellow flowers which blow from May to July, and are succeeded by seeds.

Medicinal Properties.—A decoction of this plant in wine has been recommended as an excellent vulnerary and detergent, and is said to be of great efficacy in attenuating and expectorating tough humours. The bones of animals, fed on the roots of the

cross-wort, acquire a red tinge; and wool may be dyed of a similar colour both by the roots and leaves.

CROW-FOOT.—A genus of plants, consisting of 53 species; but only fifteen are indigenous, of which the following are the principal:

1. The Lesser SPEARWORT, which see.
2. The Great SPEARWORT, which see.
3. The Lesser CELANDINE: See *Pilewort*.
4. The Sweet Wood CROW-FOOT, or Goldilocks, which grows in woods, groves and hedges; produces yellow flowers in April and May; and is so inoffensive that the whole plant may be eaten as spinach. The blossoms are much frequented by bees.
5. The Round-leaved Water CROW-FOOT; thrives in shallow waters; and produces small yellow flowers from June to August.
6. The Bulbous CROW-FOOT, also called Butter-flower, Butter-cups, &c. It grows on meadows and pastures, produces yellow flowers in May, and turnip-shaped bulbous roots, which like the blossoms and leaves, are so corrosive, that they speedily blister the skin; on this account they deserve, for many reasons, to be substituted for the Spanish Fly.
7. The Upright Meadow CROW-FOOT: See *Butter-cup*.
8. The Corn CROW-FOOT, is an annual plant, growing in corn-fields; and bearing small pale yellow flowers, which blow in the month of June, and are succeeded by flat prickly seeds. This noxious weed is particularly luxuriant on damp soils, and most severely exercises the patience of the farmer. The only effectual method of extirpating it, is, to fallow the soil infested with it.

Nature and Peculiarities.—In Italy, cows, horses, and sheep, are said to eat it greedily, though it is so acrid as to poison the latter: 3 oz. of its juice killed a dog in four minutes. As it thrives chiefly in corn-fields, where cattle are excluded, its deleterious qualities are from this circumstance less known in this country.

Bechstein informs us, that in Germany the milk of cows becomes tinged with blood, when feeding on the fresh leaves of this plant.

CUCKOW-BREAD.—See *Common Wood Sorrel*.

CUCKOW-PINT.—See *Wake Robin*.

CUCUMBER.—A genus of exotic plants, consisting of fourteen species, but one kind is only common in Britain; viz.

The common Cucumber, which is reared in this country, at three different seasons of the year; 1. On hot-beds, for early fruit. 2. Beneath bell, or hand-glasses, for the middle crop. 3. On the common ground, when designed for pickling.

As the cultivation of the last crop is the most practicable, and

generally produces the most healthful fruit, we shall here give the manner of raising them.

The proper season for sowing them, is towards the latter end of May, when the weather is settled; they should be set to the number of eight or nine, in shallow holes, and filled up with fine earth. After appearing above ground, they need only be kept clear from weeds, and occasionally watered. Five plants are to be left, at first, in each hole; and, as soon as they have grown a little larger, the worst of them is to be pulled up, so that their number may be reduced to four; this crop will begin to produce fruit in July.

A very ingenious method (we learn from a foreign Journal) of propagating cucumbers for several crops in succession, without sowing them, has been lately discovered by Mr. *Burton*, of Staineshead, Sussex. As soon as there appear several flower-buds on a plant, he bends the second or third joint of a branch below the blossom, fastens it firmly into the ground, and cuts off the capillary point of the plant. The new vegetable speedily takes root, when he separates it from the parent stock. Thus he proceeds with the most vigorous of his plants; and as each root has to supply only a few fruits with nourishment, he saves both room, labour, and time, while this process enables him to procure a constant succession of cucumbers for eight, twelve, and more months, from *one* sort, which is not so liable to degenerate, as if they were raised from a variety of seeds.

Medicinal and other Properties.—Cucumbers are a salubrious, cooling fruit, and may be safely allowed to consumptive patients; as they sweeten acrid humours, and at the same time are gently laxative; but, being in a considerable degree acescent, and sometimes attended with flatulency and diarrhœa, such effects may be prevented, by eating them in great moderation; or with the addition of vinegar and pepper, which counteract their natural coldness. If properly pickled (without colouring them with that poisonous metal, copper; or rendering them too acrid with stimulant spices,) they are an excellent antiseptic; yet we consider them highly improper, either for children or wet-nurses.

CUDWEED.—A genus of plants, comprising 72 species, of which the following are the principal:

1. The Common CUDWEED, an annual indigenous plant, which grows in barren meadows, pastures, and road-sides; and produces yellowish flowers, which blow in the month of July or August.

Medicinal Properties.—This plant is desiccative, and astringent; it is said to be of great service in dysenteries and hæmorrhages of every kind. A decoction of it in small beer, is

frequently given by the lower class of people for quinsies, in the cure of which complaint it has been found very efficacious.

2. The Mountain CUDWEED, grows on dry mountainous pastures in the North of England, Wales, and Cornwall; also on the Newmarket, Canham, Swaffnam, and Stratton heaths, &c. Its white and purplish flowers blow in June and July. The late Dr. *Gleditsch* enumerates it among those plants, which he found useful in currying leather.

3. The Sandy CUDWEED, a native of Germany, which grows on sandy fields and banks; and produces fine yellow flowers through the whole summer. It deserves to be propagated in Britain, as the Japanese, according to Prof. *Thunberg*, occasionally prepare their *moxa* from the down with which the whole plant is covered, and smoke its leaves for common tobacco.

CURRANT-TREE.—An indigenous plant, comprising six or seven species, of which the following are the principal:

1. The Common RED CURRANT, which is found in woods in the northern counties. It bears greenish white flowers, which blow in the month of May, and are succeeded by red berries. Its leaves are eaten by cows, goats, and sheep, but with reluctance by horses.—This plant is very liable to be infested by a species of plantlouse, the *Aphis ribes*, the depredations of which change the fine green colour of the leaves, that become red, pitted, and shrivelled. The best method of exterminating these vermin is, by smoking the bushes with half-burnt wood, or sprinkling them early with decoctions of tobacco, or solutions of lime and pot-ash, or simple soap-water.

2. The Sweet MOUNTAIN CURRANT, which grows wild chiefly in the county of York, and flowers in the month of May. Its fruits has a flat sweetish taste, and is only relished by children. The wood is so hard and tough, that it makes strong teeth for rakes; the leaves are eaten by sheep, goats, and horses.

3. The BLACK CURRANT, which has woolly flowers that blow in the month of May.—Its leaves are eaten by goats and horses.

The fruit of the *red* and *white* currants is greatly esteemed for the table. They are nutritive, but should not be too frequently nor abundantly eaten, as they tend to produce flatulency, in persons of relaxed habits and a sedentary life: hence they ought to be consumed together with other food, in which case they are emollient, gently laxative, and, in some instances, anodyne. In fevers, the juice of currants, when mixed with an equal quantity of sugar, and made into a jelly, is cooling and grateful to the stomach; being in a slight degree astringent and antiseptic.

Currant-Wine is an excellent drink during the heat of summer, especially with the addition of water. Different receipts have been given for making this pleasant beverage. We select

the following: Gather the currants when they are fully ripe; break them into a tub, or vat; then press and measure the juice, to which add two-thirds of water, and to each gallon of that mixture put 3lbs. of soft sugar; agitate the whole properly till the sugar is dissolved, when it may be barrelled. The juice should not be left to stand during the night, as the fermentation ought not to take place, till all the ingredients are compounded.

- *Black Currants* have a peculiar flavour, which many persons dislike: they are, however, reputed to be very wholesome, and their juice is frequently boiled down into an extract or syrup, with the addition of a small quantity of sugar; in which state it is called *rob*, and much esteemed in sore-throats and quinsies. Some persons put black currants into brandy, for the same purpose as others do cherries; compositions that are less adapted to the benefit of health, than to stimulate the corrupted palate of dram-drinkers. An infusion of the young roots of the former, is said to be useful in eruptive fevers of the human species; and in those dysentric distempers with which cattle are sometimes affected.

CYPER-GRASS.—A genus of plants producing seventy-nine species, of which the following are the principal:

1. The Round CYPERUS, a native of the East Indies; its imported root is knotty, surrounded with tough, fibrous strings, of a brown colour externally, but grey internally; and of a pleasant odour, especially when fresh and well dried.

2. The Eatable CYPERUS (earth-almonds,) growing wild in the East, in Italy and the south of France. Its pulpy and mealy root is agreeably sweet, not unlike chesnuts, and might be advantageously cultivated in this country, as an occasional substitute for bread.

3. The PAPER-CYPERUS, a native of Calabria, Sicily, Syria, and especially of Egypt, on the banks of the Nile. From this noble plant, the ancients manufactured most of their paper, their sail-cloth, mattresses, ropes, nay, even their apparel. Perhaps, we may soon be enabled to import an abundant supply of this valuable vegetable, in British vessels.

4. The Sweet CYPERUS, or English Galingale, a native plant, which is chiefly found on the island of Purbeck, where it flowers in July. Its root is of the size of an olive, full of little knots or specks, of an oblong figure and grey colour; of a warm, somewhat bitter taste; and almost destitute of smell, when newly taken out of the ground.

In medicine the roots of the first, or round Cyperus, as well as those of the English Galingale, are esteemed cordial, diuretic, and cephalic; they occasionally have afforded relief in nephritic disorders, as also in cholics; and may be taken either in powders

or in a decoction. The production of the latter, or native species, however, is at present seldom used; though we presume it is in no respect inferior to some of the more costly medicines imported into this country.

CYPHEL.—See Common *Houseleek*.

D. DAFFODIL, THE COMMON.—An indigenous, perennial plant, growing in woods, meadows, and the sides of hedges, which is found chiefly in the north and west of England. It produces large, yellow, and ill-scented flowers, which appear in March. *Bechstein* observes, that two drams of the root afford a gentle laxative.

DAISY, THE COMMON.—A perennial, indigenous plant, which abounds in meadows and pastures, and is in flower from March to September.

The leaves of the daisy, though slightly acrid, may be eaten as early spring salad, or boiled like spinach; its roots have a pungent taste, and are in high repute abroad as an excellent vulnerary, attenuant, cooling and astringent medicine; yet no attention is paid to it in this country, except what it claims from the beauty of its flowers; on account of which it has been introduced into gardens. It is refused by horses, sheep, and cows.

M. Bechstein, a respectable German Naturalist, mentions a curious fact relative to the virtues of the common daisy. In the 2d vol. of his *Concise Natural History of Plants, both foreign and indigenous*, (printed at Leipzig, in 1797,) he says in a note, "I am acquainted with a very skilful and experienced physician, who has completely cured several consumptive persons with the flower-buds of the *bellis perennis*, by stuffing young chickens with these buds, without any other ingredients; when stewing them in unsalted beef-tea or broth, adding a little fresh butter, and allowing the patient for three weeks no other food but the medicated dishes thus prepared. At first, it affords a delicious repast." We candidly confess, we have had no opportunity of ascertaining the efficacy of this preparation, by the test of experience; but nevertheless we believe, that in so desperate a situation as that of *pulmonary consumption*, or other species of *atrophy* (unattended with violent febrile symptoms,) it well deserves to be opportunely and fairly tried.

DAME-WORT.—Or *Dame's Violet*, an indigenous perennial plant, which grows in pastures and hedges, and flowers in the month of May and June.

According to *Boerhaave*, it is antiscorbutic and diaphoretic, and of great service in asthmas, coughs, and convulsions. It has also been recommended, externally, in inflammations, cancers, gangrenes, and in contagious disorders.

DANDELION, THE COMMON.—Is an indigenous, perennial plant, growing in meadows and pastures, on road-sides, ditch-

banks, &c. It produces yellow flowers, which blow from April to September, and have the remarkable property of expanding early in the morning, and closing in the evening. (See Table 42, Dr. N's. Herbal.)

In the spring, when the leaves are white, and scarcely unfolded, they are an excellent ingredient in salads. In France, the roots and leaves are eaten with bread and butter. This plant is also relished by goats, and especially by hogs, who devour it eagerly; but sheep and cows dislike it, and horses totally refuse it: the seeds also support the smaller birds, which are extremely fond of them. The root, leaves, and stalk, contain a large proportion of bitter milky juice, which possesses considerable activity. Its more immediate operation is to remove visceral obstructions, and promote the urinary discharge. The dose prescribed by *Boerhaave*, for this purpose, is four ounces, to be taken three or four times a day; and we can, from experience, corroborate its great efficacy in dropsical, and those complaints which are connected with a disordered state of the first passages; though we have directed it to be taken in much smaller doses. The ancient Greek physicians were better acquainted with the properties of this excellent vegetable, than the modern practitioners, who appear to be more anxious to introduce exotics imported from distant countries, than to ascertain the qualities of those numerous medicinal plants which grow in their own climate. In short, we are induced to believe, that if the Great Frederic of Prussia had complied with the excellent prescription of the late *Dr. Zimmerman*, who directed the extract of dandelion to be taken in moderate portions of two table-spoonfuls each time, that extraordinary hero and philosopher would have survived his last attack of dropsy, for many years; because his constitution was unimpaired, and his mind uncommonly vigorous; tho' he had from his infancy imbibed an invincible prejudice against all physic and its administrators.

DARNEL.—A native genus of plants producing four species, namely:

1. The Red Darnel, or Ray-grass, which grows on road sides and dry pastures; it attains the height of two feet, and flowers in June. (See Table 4 Dr. N's. Herbal.)

Uses, &c.—As it makes good hay upon dry, chalky, or sandy soils, it deserves to be cultivated, especially with clover: It springs earlier than the other grasses; thus supplying food for cattle, at a season when it is most difficult to be obtained. But, though it is eagerly eaten when young, it is too dry and hard when converted into hay, by itself. *Mr. Swayne* hints in his "*Gramina Pascua*," (a most valuable publication for practical farmers, who wish to obtain a complete knowledge of the different pasture-grasses); that the common cultivated ray-grass,

had probably, by frequent sowing, degenerated from its natural qualities, and that it was in many respects inferior to that growing naturally in our best meadows and pastures. *Mr. Pacey*, an enlightened agriculturist, has lately raised a variety of ray-grass from seeds collected in old pastures, and has now multiplied it to such extent, as to sell annually a considerable quantity at the price of 10s. 6d. per bushel. It has, by the most competent judges, been proved to be infinitely superior to the cultivated ray-grass, and he has sufficient demand for his whole produce.—The red darnel is eaten by cows, horses, and sheep; but goats do not relish it.

2. The Bearded DARNEL, a poisonous plant, which grows in ploughed lands among wheat, rye, oats, but chiefly among barley and flax. It flowers in July and August.—*LINNÆUS* observes, that the seeds of this plant, when mixed with bread-corn, produce but little effect, unless the bread be eaten hot; but if malted with barley, the beer becomes more intoxicating; and we may add, the drinking of it is attended with temporary blindness. According to the corresponding account of various authors, the bread made of corn abounding with these seeds, and eaten frequently, produces giddiness, anxiety, vomiting, purging, violent colics, convulsions, delirium, and death. Hence this plant ought to be carefully extirpated, by weeding, before it runs to seed.—Sheep are not fond of it.

3. The White Darnel, or annual Beardless Darnel, which flowers in July, and is not frequent in fields. It is, however, sometimes very injurious to a wheat-crop, but may be easily avoided, by previously separating it from the seed.

4. The Drank; wild Out-grass; or Sea Darnel. It grows on loose sands, near the sea coasts, and flowers in May or June.—Both the last mentioned species are not possessed of any peculiar properties.

DEAD-NETTLE.—An indigenous plant consisting of three species, of which the following are the principal:

1. The White DEAD-NETTLE, or White Archangel, which is perennial, grows on rubbish, corn-fields, and ditch-banks, blooms in the month of May or June, and also in September. (See Table 114, Dr. N's. Herbal.)

The flowers of this species have been much celebrated for their efficacy in pulmonary disorders, and in those incident to females; but their virtues appear to be precarious. Early in the spring, the young plant is eaten by the country people of Germany and Sweden, among their sanative, culinary herbs.

2. The Red DEAD-NETTLE, Red Archangel, or Dee-nettle; which is an annual plant, grows in rubbish, corn-fields, and kitchen-gardens, and flowers in the month of May.—The leaves

of both plants may be boiled and eaten as greens: the latter is relished by sheep, goats, and horses, but refused by cows.

DITTANDER.—See *Pepper-wort*.

DOCK.—A genus of perennial plants, comprising thirty-nine species, of which eleven are natives; and of these the following are the principal:

1. The Curled Dock, which is found in meadows, pastures, on road-sides, and in almost every cultivated soil; it flowers in the month of June or July; its erect stalk attains the height of three feet. In the county of Norfolk this plant vegetates most luxuriantly, and is the pest of clover fields, from which it is very difficult to be extirpated. It is refused by horses, cows, and goats.—According to Dr. *Withering*, the fresh roots of the curled dock, when bruised and made into an ointment, cure the itch; and its seeds have been given with success in cases of dysentery.—In Germany, a decoction of the root is employed by country people for the cure of the scab, and other eruptions in the cattle. The whole plant has been advantageously used on the Continent, for tanning or currying leather.—In early spring, the leaves may be boiled like spinach; and the peasantry abroad frequently smoke them instead of common tobacco.—*Bechstein* informs us, that the dried seeds afford flour and bread.

2. The Sharp Dock, which is common in woods, hedges, on the sides of rivers, and roads, and is sometimes found in fields and meadows. Its stalk grows frequently six feet high; and the flowers appear in June or July. This plant is refused by cows and horses. The roots, however, are employed by dyers, and with the addition of alum and cream of tartar, give a variety of shades, from a straw-colour to a fine olive: they impart a beautiful deep green to cloths that have been previously dyed blue.—The whole plant has been recommended to tanners as an useful substitute for oak-bark.

3. The Water Dock, growing in peat-marshes, wet ditches, pools, at the sides of rivers, and in shallow water. It flowers in July or August, and is succeeded by large seeds.—This plant affords a medicine of considerable efficacy, when applied externally as a wash for spongy, putrid gums; its roots, when pulverized, have been found excellent for cleaning the teeth. These roots are of a bitter, astringent taste, and have often been employed for the cure of scorbutic and cutaneous disorders, whether administered internally, or applied externally in ointments, cataplasms, lotions, or fomentations. Decoctions of the leaves are, likewise, an efficacious laxative, and have been taken with advantage in rheumatic pains, and chronical diseases, occasioned by costiveness, or by visceral obstructions.—The dose usually given, is a decoction of half an ounce of the fresh roots, or from one to two drams of them, in a dry state.

4. The Broad-leaved Dock, which grows among rubbish, in farm-yards, courts, parks, and at the sides of ditches: it flowers in the month of July or August.—Fallow-deer are extremely fond of this species, as well as of the sharp dock, and eat them both with such avidity down to the root, that either of them is found thriving in a park.

5. The Sorrel-Dock: See Common Sorrel.

All these species of the dock are but seldom cultivated; as they so easily multiply by their numerous seeds, that, where they are once admitted, they become very troublesome weeds and their extirpation calls forth every exertion of the industrious farmer.

DODDER.—A genus of plants, of which two species are natives:

1. The Greater DODDER, a very pernicious weed, that chiefly attaches itself to clover, hops, flax, nettles, and willows, and flowers in July or August. Its leaves are scarcely visible, and it ought to be timely extirpated, before the seeds become ripe. (See Table 107, Dr. N's. Herbal.)

The whole of this plant is bitter, and is eaten by cows, sheep, and hogs; but goats do not relish it, and horses totally refuse it. In dyeing it affords a pale reddish colour.

2. The Lesser DODDER, which is common in corn-fields and heaths, but is found chiefly preying on thyme, whence it has received its name. It is in bloom from July to August. This plant is reputed to be aperient and cleansing, as well for curing the jaundice as cutaneous disorders, &c. In this country, however, it is seldom used, though, from its pungent aromatic taste, it may with advantage be substituted for many drugs that are now imported.

Both these species are plants of a most singular nature, being almost destitute of leaves, parasitical, creeping, and fixing themselves to whatever is next to them. They decay at the root, and are afterwards nourished by the plants which support them. As soon as the shoots have twined about an adjacent plant, they put forth from their inner surface several vesicles, or papillæ, which attach themselves to the rind or bark of the plant. By degrees the longitudinal vessels of the stalk, which appear to have accompanied the vesicles, shoot from their extremities, and penetrate the softer plant, by dividing the vessels, and insinuating themselves into the tenderest parts of the stalk; and so intimately are they united with it, that it is much easier to break, than to disengage them.

DOGBERRY-TREE.—See *Cornel-tree*.

DOG'S-GRASS.—Or *Couch-Grass*, is an indigenous, perennial plant, which grows on arable lands; it is also frequently found near the sea-coast, and continues in flower from June to September.

This is an extremely troublesome weed, as every joint of its fibres will grow; and so very luxuriant is its vegetation, that a single small joint when transplanted, has been found to cover a superficial square yard of land, in twelve months. Various remedies have been tried to eradicate it; but the most successful is that of laying the land fallow, in a dry summer; and frequently harrowing it to draw out the roots: where this is carefully practised, the soil may be so completely cleared of them, in one summer, that the remaining roots will not materially injure the future crop. A still more effectual mode of extirpating them, is to sow on such land, only those vegetables which require the horse-hoeing culture; for, where the soil can be frequently stirred, or harrowed, that operation will considerably tend to clear it from the roots of this grass, and also of many other noxious weeds.

At Naples, the roots of the Couch-grass are collected in large quantities, and sold in the market, as food for horses. They have also been successfully tried in Britain, for the same purpose; and may be safely substituted for oats; as horses prefer them to the latter. They possess a sweet taste, somewhat similar to that of liquorice; and, when dried and ground to meal, have in times of scarcity been converted into bread. Cows, goats, and sheep, eat the leaves, which are also occasionally swallowed by dogs, instinctively to excite vomiting, and to cool their hot blood.

Decoctions of the roots of Couch-grass are used in medicine, and reputed to be aperient, diuretic, and of considerable service against the stone in the bladder. The juice of the leaves and stalks was greatly esteemed by *Boerhaave*, who recommended it to be drunk in considerable quantities, by patients troubled with obstructions in the viscera; particularly in cases of scirrhus liver, and in the jaundice. Cattle frequently have indurated livers in the winter; hence they should, early in the spring, be turned out into this grass, which will effectually cure the disorder.

DOG's-MERCURY.—An indigenous plant, growing under the hedges and in woods, in many parts of Britain. Its perennial root creeps in the ground; the stalks are single, and without branches, rising ten or twelve inches high, with rough leaves; these have their male flowers, growing in spikes upon plants different from those which produce seeds. (See Table 48, Dr. N's. Herbal.)

This vegetable is of a soporific and poisonous nature, both to man and brute. There are instances of persons who, by mistake, have eaten this plant like spinach, instead of English Mercury, in consequence of which they never awaked from their mortal sleep. In the Isle of Skye, an infusion of it is sometimes taken to bring on a salivation.

Ray, relates the case of a man, his wife, and three children,

who experienced highly deleterious effects from eating this herb fried with bacon. Notwithstanding its hurtful properties, sheep and goats feed on it, but cows and horses refuse it.

When the Dog's-Mercury has accidentally been eaten among culinary plants, the most effectual method of procuring relief, is a brisk emetic speedily administered; and after having evacuated the contents of the stomach, vinegar, lemon-juice, or other vegetable acids ought to be taken in copious draughts. But, when the poison has been discovered only after the lapse of several hours, small doses of camphor may be given, till medical assistance can be procured.

Lastly, the roots of the Dog's-mercury afford, according to *Bechstein*, a blue and crimson colour, both in dyeing and in painting.

DOG-ROSE, THE COMMON.—Or *Wild-briar*, or *Hep-tree*, an indigenous plant, growing in woods and hedges; in the month of June it bears oval flowers, which are succeeded by red, egg-shaped berries.

The blossoms of this plant, when distilled, afford a pleasant perfumed water. The leaves of every species of the rose, but especially those of the dog-rose, are recommended as a substitute for tea; when dried and infused in boiling water, they yield a fine colour, a somewhat astringent taste, and a grateful odour. Dr. *Gleditsch* observes, that the green rose-leaves of every species are useful in currying fine leather.

An infusion of the full-blown blossoms of all the roses, especially of the paler kinds, is purgative; but the petals of red roses, gathered and dried before they expand, become astringent. The bark of the dog-rose, according to *M. Siefert*, imparts to wool a dark brown colour, which was fixed in different specimens, by the usual ingredients; and on dropping into the dye a solution of alum, it changed to an azure blue. But he observes that, in all these experiments, the colours possessed little or no lustre.

The berries of this shrub are at present chiefly employed in Britain by the apothecary, for making the conserve of hips. On account of its fine flavour, the pulp of these berries is likewise used by the house-wife, in the north of Europe, for the preparation of domestic wines, with the addition of sugar. In a dried state, this pulp affords a grateful and rich ingredient in sauces. But we conceive that still greater advantage may be derived from Dog-berries, by submitting them to the processes of fermentation and subsequent distillation. From an experiment carefully made, it appeared that one gallon of this fruit, without any admixture, but that of a little water, yielded about two pints of *first runnings*, which, after being distilled a second time, produced one pint of a very pure proof spirit.

DOG's-TAIL GRASS, THE CRESTED.—An indigenous perennial plant, which grows in dry pastures, on a moist clayey soil, and blows in July. Its leaves are shorter than those of the pasture grasses; but they grow closely together, in great abundance, and are very palatable to cattle, particularly to sheep. *Bechestein* affirms, that the latter animals grow remarkably fat by pasturing on the different species of dog's-tail grass; and that their flesh thence acquires a flavour peculiarly delicate. Hence this plant might be advantageously reared in fields designed for sheep-walks, but by no means as a meadow or hay-grass. Its straws are uncommonly hard and tough; and, as they shoot up at a season when the leaves of all other grasses are very plentiful, they are not cropped by cattle, but generally suffered to stand and perfect their seeds, which afford a scanty subsistence to pigeons, at a time when their food is scarce.

DOG's-VIOLET.—An indigenous perennial plant, which thrives in shady places, heaths, and hedge-banks: It is in flower from April to June.—Sheep are very fond of this herb, and bees collect honey from its blossoms.—The roots, when dried and pulverized, are said to be an excellent vermifuge, and were formerly drunk in wine, as an approved remedy for the colic. On account of their supposed astringent and restorative properties, they are sometimes given in water, to cure children of the epilepsy.

DROPWORT.—A genus of perennial plants, consisting of seven species, five of which are indigenous; among these the following only deserve notice:

1. The Common Water Dropwort, which thrives in meadows, ponds, and ditches; and flowers in July. Its naked stalk grows only 12 inches high. The plant is refused by cows and horses; though, from experiments made in this country, it does not appear to be noxious to the former, *Bechestein*, however, affirms that in Germany this species of the dropwort is a poisonous vegetable, and has been found to produce dangerous effects on man and dogs; its root, therefore, which spreads extensively in a swampy soil, ought to be carefully extirpated.

2. The Hemlock Water Dropwort, or Deadtongue, which grows in watery places, on the banks of rivers, and in ditches. Its reddish thick stalk attains a height from 3 to 5 feet. According to Dr. *Withering*, the whole of this plant is deleterious; and Dr. *Pulteney* remarks, that the root is the most virulent of all the vegetable poisons that Great Britain produces; many instances of its fatal effects being recorded. Unless the contents of the stomach, after eating any small portion of this root (which is sometimes mistaken for wild celery, or parsnip) be immedi-

ately emptied by briskly operating emetics, there is no other chance of saving the patient's life ; because it speedily produces convulsions, madness, and death.

As a medicine, however, an infusion of the leaves, or three tea-spoonfuls of the juice of the root, taken every morning, has in one instance cured a very obstinate cutaneous disease ; though we advise such trials to be made only with animals.---According to Mr. *Gough*, the country people in Westmoreland apply a poultice of the herb to the ulcer, which is sometimes formed in the fore part of the cleft of the hoof in horned cattle, and is termed the *soul*.---The inhabitants, of Pembrokeshire call this plant, the five-fingered root : it is much used by them in cataplasms for the felon, or the worst kind of whitlow.---Sheep eat the leaves of this vegetable, but they are refused by cows and horses.

DUCK's-MEAT.---A genus of plants, consisting of four species, all of which are natives of this country, and grow abundantly in ponds, ditches, and stagnant waters. They are in flower from June to September, and afford a grateful food to ducks and geese, from which circumstance this vegetable has received its name.

Uses, &c.---In Germany, it is, on account of its various economical uses, often cultivated, by removing the whole plant in pails, and putting it in stagnant waters.---When mingled with bran, it affords excellent food for geese and other poultry. In Thuringia, hogs are reared and fattened with a mixture of duck's-meat, bran and ground barley. But the most profitable employment of this vegetable, we learn from *Bechstein*, who informs us, that “from these apparently useless fibrous roots, a yarn may be spun, which is equal to that obtained from flax.”

Duck's-meat is of a cooling, emollient nature, and has therefore been applied to inflammations, erysipelas, or the shingles ; and also to the gout, either alone or mixed with barley-meal. Country people sometimes employ it for removing the jaundice : hence they infuse it in white wine, to the quantity of six ounces, to be taken nine days successively, at the end of which period, it is said to have effected a cure.

D'WAY-BERRIES.---See DEADLY NIGHTSHADE.

DYER's-GREEN-WEED, or WOOD-WAXEN.---Is an indigenous plant, growing in pastures, and on the borders of corn-fields. It produces yellow flowers, which blow in the month of July or August, and are succeeded by numerous seeds.

Uses, &c.---This herb is eaten by horses, cows, sheep, and goats :---the flowers afford a yellow colour, which is preferred to every other, for dying wool green. This plant also yields the fine yellow lacker of painters, by boiling the stalks and leaves

in lime-water, and again placing the clarified decoction over the fire, with chalk and alum.

DYERS'-WEED.—Or **YELLOW-WEED**, an indigenous annual plant, growing in meadows, pastures, on walls, and barren uncultivated spots, particularly on the rubbish thrown out of coal-pits. It has a cylindrical, hollow, furrowed stem, and produces yellow flowers, which blow in the month of June or July. This plant is not relished by cattle, few eating it, except sheep, which sometimes browse it a little.

The dyers'-weed imparts a most beautiful yellow colour to wool, cotton, mohair, silk, and linen, and is principally used by dyers for that purpose, as it affords the brightest dye. A decoction of this plant also communicates a green colour to blue cloths, and constitutes the basis of *Dutch pink*. The tinging properties reside in the stems and roots, which should be cultivated in sandy situations, because rich soils render the stalks hollow, which consequently do not impart so delicate a colouring matter.

As the durability and brightness of the colours obtained from this plant greatly depend on the circumstance, whether a just proportion of alum and cream of tartar have been used for the lye, in preparing the goods before they are dyed, we can from experience recommend *three* parts of alum to be used to *one* of tartar; if more of the former be employed, the colour will be pale; if a greater quantity of the latter, it will acquire an orange shade.—M. *Gadd* informs us, in the 29th vol. of the *Transactions of the Swedish Academy*, that he found the following proportion of ingredients to be the most practically successful in making the preparatory lixivium: for one pound of wool, two ounces of alum, six drams of cream of tartar, to be dissolved in three gallons of water, to which are to be added two handfuls of wheaten bran. After remaining twelve hours in this decoction, the wool is to be taken out, rinsed, then half-dried, and afterwards boiled together with one pound of dyer's green-weed, in four gallons of water; and after it has been some time over the fire, the plants should be removed, and half an ounce of the purest pot-ash (which must contain no *lime*, like the *Essex* ashes) added to the liquor; when the wool must be gently agitated, till it acquire the proper shade of yellow. The colour may be heightened by an additional portion of pearl-ashes, or salt of tartar; but its durability will thus be affected.—If silk or linen are to be dyed, both the tartar and bran must be omitted, and the colouring matter fixed with alum and pot-ash: but, in woollen cloth or yarn, the permanency of the colour is remarkably promoted by the addition of wheaten bran.

E. EARTH-NUT.—A native plant of two species, viz. the *Great Earth-nut*; and the *Common Earth-nut*, or *Pig-nut*. Both are perennial plants, growing in sandy or gravelly meadows.

pastures, orchards, and woods: they flower in the month of May or June.

The roots of these plants are at present searched for only by hogs, which devour them with avidity; but as they are very little inferior to chesnuts, we think they might form an agreeable addition to our winter desserts, and be eaten either raw, boiled, or roasted.

ELDER.—A genus of plants consisting of six species, two of which are indigenous.

1. The DWARF ELDER, or Dane-wort, which is perennial, grows in hedges and on road sides, and flowers in the month of July. The green leaves of this plant are said to expel mice from granaries: neither hogs, cows, goats, sheep, nor horses will eat them.—Its berries impart a violet colour, and their juice mixed with vinegar dyes raw linen, as well as morocco leather, of an azure blue.—In its medicinal effects it is more violent than the following species, and therefore requires greater caution.

2. The common ELDER, which thrives in woods, and damp hedges. In May or June it produces white flowers, which are succeeded by black berries.—This plant is extensively useful: its wood being hard and tough, is made into meat-skewers, tops for angling rods, and needles for weaving nets; it is also employed by turners, as it works extremely well on the lathe.—The leaves are eaten by sheep, to which it is of great service, when diseased with the rot; for, if placed in a situation where they can easily reach the bark and young shoots, they will speedily cure themselves. According to *Linnaeus*, the plant is refused by horses, cows, and goats, though others assert, that cows eat it eagerly.

Every part of this, as well as of the preceding species, has a narcotic smell, which ought to caution persons against sleeping beneath its shade.—The inner green bark is an ingredient in the black dye; it is likewise purgative, and may be used with advantage where strong laxatives become requisite. In small doses it is diuretic, and has been successfully used in glandular obstructions, and in dropsies. The leaves are possessed of cathartic properties similar to those of the bark, but are more nauseous. They form an ingredient in several cooling ointments: and if turnips, cabbages, fruit-trees, or corn, be whipped with them, and also with the green boughs, they will be effectually secured against the depredations of turnip-flies, caterpillars, and other noxious insects, with which those vegetables are infested.—The flowers are sometimes infused to impart a flavour to vinegar; but should on no account be given to turkies, as they will prove fatal to those birds.—The berries are likewise poisonous to poultry; but their juice, when boiled down to an extract, and sweetened with sugar (this composition being termed *rob*), is a gentle

aperient, and promotes perspiration. The juice is likewise converted into a pleasant liquor called *elder-wine*, and is also employed to communicate a red colour to raisin or sweet wines.—*Dambourney* observes, that linen may be dyed of a brown colour with the juice of these berries; and that wool, previously managed with bismuth, acquires a beautiful blueish grey, which is very permanent.—In Germany, a very pure and strong spirit is distilled from this fruit, especially after it has been sweetened by night-frosts.

On the trunk of the common elder frequently appears a fungous excrescence, wrinkled, and turned up like an ear, whitish on the outside, black within, and intersected with several small veins.—These are commonly called *Jew's ears*, and are reputed to be serviceable for inflammations and swellings of the tonsils; for sore throats, and quinsies.

ELECAMPANE.—A genus of plants, consisting of thirty species, of which four only are indigenous, and the principal of these is the common ELECAMPANE; which is perennial, abounds in moist meadows and pastures, and flowers in July or August.

Uses, &c.—It is eaten by horses and goats, but refused by hogs:—its roots, when bruised and macerated in urine with balls of ashes and whortle-berries, dye a blue colour: when dry, they possess an aromatic smell, and, on chewing them, become acrid and pungent: they are likewise in some repute for promoting expectorations in asthmas and coughs. If liberally taken, they are diuretic, and said to be of great service in removing visceral obstructions.—A decoction of this plant has been employed by farmers for the cure of the scab in sheep; and, externally applied, for removing disorders of the skin.—Prof. *Knackstaedt*, of St. Petersburg, has lately prescribed the Elecampane both ways, and found it a remedy of singular efficacy, in curing the scald head, itch, &c.

ELM-TREE, THE COMMON.—An indigenous tree, growing chiefly in a loose soil of hedge-rows, and abounding in the more southern parts of this country;—its flowers have a pleasant smell, similar to that of violets, and blow in the month of April.

This beautiful tree is of great value; and well adapted for planting shady walks, as it does not destroy the grass, and its leaves are relished by horses, cows, goats, hogs, and sheep, all of which eat them eagerly. Its wood, being hard and tough, is used for making axle-trees, mill-wheels, keels of boats, chairs, and coffins: it is also frequently changed by art, so as completely to resemble mahogany; for this purpose, it is sawed into thick planks, stained with aqua-fortis, and rubbed over with a tincture, of which alkanet, aloes, and spirit of wine, are the principal ingredients.

This plant affords subsistence to a variety of insects that prey upon it, but more particularly to the *aphis* of the elm, which generally causes the leaves to curl, so as to make them a secure shelter against the weather. No effectual method of extirpating them has hitherto been devised.—Silk-worms devour the leaves with great avidity; and, though we doubt whether they afford wholesome food to these insects, yet when alternately given or mixed with lettuce, elm-leaves may become an useful substitute, in situations where the mulberry tree is scarce.

A decoction of the inner bark of the elm-tree, if drunk freely, has sometimes procured relief in inveterate dropsies. It has a bitterish taste, and abounds with a slimy juice, which is recommended in nephritic cases, and also externally as an useful application to burns. The outer bark is bitter, contains but little mucilage, and is totally destitute both of smell and taste. The internal bark of the branches is more bitter than that of the trunk, and is, probably on that account, more efficacious.—It is chiefly used for cutaneous complaints, such as the herpes, or shingles, and the leprosy.

ENDIVE.—See *Succory*.

ERYNGO.—Or *Sea-holly*, a genus of plants, consisting of eleven species, two of which are natives of this country, viz.

1. The SEA-ERYNGO, which is pereunial, grows on the sea-shore, strikes its roots twenty feet deep into the soil, and flowers in the month of July or August.

2. The FIELD-ERYNGO, which is also perennial, grows chiefly near the sea-side, and likewise flowers in the month of July.

Nature and Use.—Both species possess the same properties; the leaves being somewhat sweet, and having an aromatic warmth or pungency. The Sea-eryngo however, is much stronger than the latter species.—The young, flowering shoots, when boiled, have a flavour of asparagus, and are an wholesome and nutritious summer food. The roots of the first species are principally directed for medical use: they possess no remarkable smell; but, when chewed, have a pleasing, and somewhat aromatic sweetness. *Boerhaave* considered this plant as one of the principal aperients, and he usually prescribed it as a diuretic and antiscorbutic; at present, however, the roots only are candied, and preserved as sweetmeats: those of the second species are thick, pulpy, sweet and nourishing, on which account the Germans boil and eat them as a culinary vegetable.

In dyeing, these plants afford but an indifferent yellowish brown colour; hence they are, according to *M. Mezer*, of Prague, more advantageously employed in that city for extracting soda, or mineral alkali.

ESCHALLOT.—Or *Shallot*, is a native of Palestine, whence it has been introduced into our kitchen gardens. It is raised

from suckers, which are set about the end of February, in beds or furrows, at the distance of about three inches from each other. Towards the end of June, the stems are tied up: and, in the course of another month, the plants are pulled out of the earth; when they are exposed to the air to dry, and afterwards preserved in some dry airy place.

The roots of the Estchallot are very pungent; have a strong but pleasing smell, and are preferred to onions, as ingredients in highly-flavoured soups and gravies. They are also pickled, in which state considerable quantities are consumed in the East Indies.

This plant, when mixed with vinegar, rice, and honey, is said to be serviceable against the bite of a mad dog: we doubt, however, the efficacy and propriety of such an application. It is also recommended as an excellent cephalic, especially when inhaled through the nostrils; but its beneficial properties are those of creating an appetite, and expelling foul air.

EVERLASTING.—See *Cudweed*.

EYE-BRIGHT.—An annual indigenous plant, growing on heaths, dry barren meadows, and in pastures: it flowers from July to September.

This vegetable is remarkable for not thriving in any situation, unless it be surrounded by plants that are taller than itself. It is eaten by cows, goats, horses, and sheep, but is refused by hogs.

Eye-bright is somewhat astringent and bitter; it imparts a black colour to a solution of vitriolated iron. Its reputed efficacy in curing various disorders of the eyes, appears to us doubtful: several authors, however, strongly praise its virtues, and maintain that it is particularly useful to eyes impaired by long-continued application, and also to those which are dim and watery, in consequence of old age. For this purpose, Mr. *Bradley* advises the powder of the dried leaves to be frequently taken internally, after mixing it with the yolk of an egg, and likewise to make daily use of this herb among culinary vegetables, or to apply a decoction of it in simple water externally.—In common with many other plants, the Eye-bright has also been recommended in the jaundice. We confess our inexperience of its salutary effects.

F. FASELNUT.—One of the most curious Indian plants, which attains its greatest perfection in the island of Ceylon. It grows to the height of 25 or 35 feet, without any branches, but has very beautiful leaves; the trunk is remarkably straight, and the leaves form a round tuft at the top. Its fruit is contained in a yellowish shell, externally smooth, but rough and hairy within, resembling that of a cocoa-nut, though in size not exceeding a large walnut; its kernel is not unlike a nutmeg, and contains in its centre, while soft, a greyish and almost liquid substance. The

ripe fruit is astringent, and its consumption in the East Indies is perhaps more general than that of tobacco in Europe; as every person chews it, together with the leaves of Betel, after mixing with it lime made of sea-shells. This mastication occasions much spitting, cools the mouth, and fastens the teeth and gums; it is likewise said to sweeten a *fetid breath*, and to strengthen the stomach: for these conjoint purposes, it may, even in our colder climate, be advantageously employed; and as we possess perhaps no plant of similar efficacy, it might be easily imported.

FAT-HEN.—See *Wild Orache*.

FEA-BERRY.—See *Rough Goose-berry*.

FENNEL, THE COMMON.—Or *Fennel Dill*, a native perennial plant, growing on chalk cliffs, and common on the western coasts. Its yellow flowers appear in July or August.

The Tender buds of this aromatic plant are useful in salads; its leaves are boiled, and used in sauces for several kinds of fish, and also eaten raw with pickled salmon, &c.

The seeds yield an excellent aromatic oil, which is carminative, resolvent and diuretic, without heating the body; on account of these valuable properties, as well as for its strong, pulpy, and esculent root, this plant is industriously cultivated on the Continent: it delights in a rich, but not too moist soil; and the seed is put in the ground soon after it becomes ripe.

FENNEL, THE WATER.—See *Water Starwort*.

FERN, THE FEMALE.—An indigenous plant, growing on heaths, in woods, and dry barren places, and flowering in the month of August.

This weed is extremely difficult to be eradicated, as its roots, in soft and deep soils, have been found at the depth of *eight* feet. One of the most effectual methods of extirpating the Fern is, to mow the grass frequently; and, if the field be ploughed up, and well dunged, this plant will not thrive:—urine is said to be of considerable efficacy in checking its vegetation. It may also be easily destroyed, by means of an instrument consisting of a stick, in which is inserted a blade, with blunt edges, and with which the stems of the plant are to be bruised. Several acres may thus be cleared, even by a woman in the course of one day: the next morning a gummy matter will exclude from the injured stalk, and the Fern will gradually disappear.

But, however troublesome this vegetable may prove to the industrious husbandman, it is not altogether useless, and might well deserve to be regularly cultivated in those places where few other vegetables will grow.

For covering the roofs of houses, Fern affords a valuable substitute for straw; in order to apply it to this useful purpose, it should be pulled up together with its roots, in the beginning of October, when it is perfectly pliant and not liable to break: if

these precautions be attended to, the thatch will continue sound for thirty years. It also produces excellent litter for horses and cows; and when dry, is eaten by cattle, for which purpose it should be cut from the middle of August to that of September. Hogs are particularly fond of its roots, which render them exceedingly fat; and, it has been found by experience, that if the stalks be scalded, for a few minutes, and mixed with bran, for *store* hogs, half the quantity of bran will be saved; so that from February to June these animals may be kept at one half of the expence, by a weed growing abundantly on waste lands. It ought, however, to be remarked, that young pigs should not be fed with this plant, as it is naturally too heating for them, and might be productive of dangerous consequences.

Fern may also be employed as an excellent manure for potatoes; for, if it be buried beneath the roots of the latter, it seldom fails to produce a good crop.—It is likewise a proper substitute for coal, where the latter is scarce, for the various purposes of brewing, baking, heating ovens, and burning lime-stone, as it emits a powerful heat.

The ashes of Fern, when burnt, are frequently used by the manufacturers of glass, especially in France, because they afford a tolerably pure alkali.—In several parts of Britain, the poorer class of people mix these ashes with water, and form them into round masses, which they call *fern-balls*: these are next heated in a fire, before they are made into a lye for scouring linen. *M. Friewald* observes, in the fourth volume of the *Transactions of the Swedish Academy*, that his countrymen mix the Fern ashes with a strong lye, previously to forming them into balls, and afterwards dry them: thus, a very cheap substitute is prepared for soap; and the linen washed with it, not only becomes perfectly white, but is at the same time free from that disagreeable smell, frequently contracted by linen imperfectly washed with the common soap.

In the *Memoires d' Agriculture*, for 1786, we find that this vegetable furnishes the inhabitants of Palma, one of the Canary isles, with their *daily bread*: in digging for its roots, they first taste them, and reject those which are bitter, as useless. Such facts require no commentary.

FERN, THE MALE.—Or *Male Polypody*, is an indigenous plant growing in woods, heaths, and stony places, and flowering from June to October.

This vegetable has nearly the same qualities, and is used for the same purposes as the Female Fern. In Norway, the dried leaves are infused in hot water, in which state they afford a wholesome food to goats, sheep, and other cattle, which eat them eagerly, and sometimes grow fat by their constant use. The inhabitants of Siberia boil the Male Fern in their ale, on account

of the flavour which it imparts to that lipuor. The roots when pulverized, are an excellent vermifuge, and have been given with great success, in the proportion of two or three drams, for the expulsion of the *tania*, or tape-worm.

FEVERFEW.—A genus of plants consisting of six species, three of which are indigenous. The principal of these are :

1. The Common **FEVERFEW**, which grows in waste grounds, hedges, and walls, and flowers in June or July.

This plant is refused by horses ; the whole has a strong disagreeable smell, a bitter taste, and yields an essential oil by distillation.— It was formerly celebrated for its efficacy in hysteric, and other affections of the nerves ; as well as for its tonic, stomachic, and resolvent properties.

Dr. *Lewis*, however, thinks it much inferior to Chamomile, with which it agrees in all its sensible qualities, excepting that the common Feverfew is much weaker. But its odour, taste, and other constituents, prove that it is a medicine of considerable activity.—In Germany it has been usefully employed in tanning and currying leather.

2. The Chamomile Feverfew, which grows in corn-fields, dung-hills, as well as on road-sides, and is in flower from May to August. Its properties are similar to those of the common chamomile: it is eaten by cows, goats, and sheep, but not relished by horses ; and hogs totally refuse it.—According to *Poirer*, the flowers of this species of feverfew afford a fine yellow pigment, which may be rendered more permanent by the addition of alum, cream of tartar, and gypsum.—*Scheffer*, another German chemist, informs us, that a decoction of these flowers imparts a beautiful yellow colour to silk, if a solution of tin, saturated with cream of tartar, be gradually dropped into the liquor, till it acquires a deep yellow tinge. *Berthollet*, however, on this occasion remarks, that *pure* water must be employed, which does not precipitate the solution of tin, and that the *dyeing bath* should be kept in a hot, though not boiling state.

FIGWORT.—A genus of plants consisting of twenty-one species, four of which are natives of Britain : the principal of these is the *nodosa*, or great figwort, which is perennial, grows in woods and moist hedges, and flowers in the month of July. It is eaten by goats, but refused by horses, cows, sheep, and swine. The animals last mentioned, when diseased with the scab, may be cured by washing them in a decoction of these leaves. *Bechstein* remarks, that the fibrous root, when overgrown with small knobs, is said to afford a good remedy for the worms in hogs.

FILBERDS.—See **HASELNUT-TREE.**

FIR-TREE.—The name of several species of the *Pinus*, of pine-tree, of which the following are the principal.

1. The Scotch fir, which is a native of Scotland, and flourishes best in a poor sandy soil, especially if it be mixed with loam : on rocks or bogs it seldom attains a large size ; if planted in a black soil, it becomes diseased ; and, on chalk-lands, it perishes.

This species of fir thrives most luxuriantly on the north and east sides of hills, where it not only grows more rapidly, and attains a greater height, but the grain of its wood is also more compact, and the trees are fuller of sap than if they had been planted in another direction.

The Scotch fir is propagated from seeds, which are obtained from the cones of fruit it produces. The proper time of sowing is in the latter end of March, or beginning of April : if the seeds be set in a grove, the tree becomes tall and naked ; if in open situations, exposed to the sun, it becomes branched. At the age of four years, it is to be transplanted to the place where it is intended to remain ; during which operation the utmost caution should be taken, that the central or tap-root be not broken off, or in any manner impeded in its growth ; as, in that case, the stem would cease to shoot upwards, and the tree remain a dwarf. But, notwithstanding every care taken by the industrious planter, his hopes are often frustrated by predatory animals, such as squirrels, that strip the whole bark off the young tree, in consequence of which it dies, and is broken by the first high wind. The hare is another enemy to young firs, though less dangerous : it is affirmed that hares may be drawn away from them, by sowing in their vicinity the *Cytisus Laburnum*, a species of the Bane-trefoil, the young shoots of which they prefer to firs.

This species of the fir, is one of the most useful plants in the whole vegetable creation : it furnishes us with the best red or yellow deal, which is employed in the making of masts, floors, wainseots, tables, boxes, and for numberless other purposes.—The trunk and branch of this species, in common with the rest of the pine-tribe, afford excellent pitch and tar.—The tops, or young tender shoots, are an useful substitute for fodder, especially during the winter season :—The roots, when divided into small splinters, are employed by the poor as a substitute for candles.—The outer bark is of considerable use in tanning leather ; the inner rind is, by the inhabitants of Loch-Broom, in the county of Ross, converted into ropes. In the more northern parts of Europe, it is, in times of scarcity, made into bread : for this purpose, the inhabitants select a tree, the trunk of which is smooth, and contains the least portion of resin : they strip off the bark in the spring, dry it gently, then reduce it to powder, and knead it with a small quantity of corn-meal and water, in which state it is baked into bread.—The young cones, when distilled, afford an essential diuretic oil, somewhat resembling that of turpentine : a resinous extract is likewise prepared from them, and believed to

possess virtues similar to those of the balsam of Peru.—An infusion of the buds is highly recommended as an antiscorbutic.

2. The SPRUCE-FIR, which is a native of the northern parts of Europe, whence it has been introduced into this country. It is propagated in the same manner as the Scotch-fir, and delights in a dry, gravelly situation, though it will thrive in almost every soil. It also succeeds on a loam, and even on a hard dry rock; but frequently decays at the end of 18 or 20 years, if planted on a stiff, wet clay. The same precautions as are to be observed in transplanting the Scotch fir, ought to be more carefully attended to with respect to the Spruce-fir, which should be set exactly in the same direction in which it stood before; as, by turning the bark to another quarter of the compass, the tree generally perishes.

There are two varieties of this species, namely, the white and black spruce; the wood of both is very light, and decays when exposed to the air for a considerable length of time: it is chiefly employed for packing-cases, musical instruments, and the like. Its branches form the principal ingredient in preparing the essence of spruce, from which spruce-beer is brewed. A fine clear *turpentine* oozes from these trees: the Indians of North-America are said to employ it in curing green wounds, as well as certain internal disorders: the resin which distils from the White Spruce-fir, in particular, is supposed to be a sovereign remedy in fevers, and in pains of the breast and stomach. In Britain, this resinous juice is boiled in water, and strained through a linen cloth, by which process it acquires a solid consistence, a reddish brown colour, and an odour by no means disagreeable—whence it is called *Burgundy pitch*. In obstinate coughs, affections of the lungs, and other internal complaints, plasters of this resin, by acting as a topical stimulus, are frequently found of considerable service.

3. The YEW-LEAVED FIR; which is a tall ever-green, and a native of Scotland, Sweden, and Germany. This species also produces two varieties, viz. the *Silver Fir*, and the *Balm of Gilead Fir*. The former grows to a great height (in Germany sometimes rising to 180 feet,) and has received that name from the white appearance of its leaves. It is very hardy and will thrive in any situation; but prospers remarkably in a rich, loamy soil. The balm of gilead fir is eminently calculated for ornamental gardening, on account of the beauty of its form, and the fragrance of its foliage. It ought to be planted in a rich, good earth, as it grows best in a deep, black, sandy mould, where its roots have sufficient room to strike freely. From this variety exudes the resinous juice, erroneously called *Balm of Gilead*, on account of its possessing the same properties as that which is produced from the *Pinus balsamea*, or Hemlock-fir, a native of Virginia and

Canada, but seldom cultivated in England. In common with the other turpentine obtained from the pine tribe, that of the balm of gilead fir is a hot, stimulating, and detergent medicine : small doses of it have sometimes been successfully used in chronic rheumatisms and palsy.

FLAG, THE SWEET.—An indigenous perennial plant, growing in shallow, standing waters, rivulets, and marshy places. It delights in an open situation, and might be transplanted into gardens, where it will thrive, if the ground be moist, and not shaded by trees ; but unless it grow in water, it never produces flowers, which appear about the latter end of June, and continue till August.

The root of this vegetable has a very agreeable flavour, which greatly improves by drying. It is affirmed to possess carminative and stomachic virtues, having a warm, pungent, bitterish taste, and is frequently used as an ingredient in preparing bitters, though it is said to impart a nauseous flavour.

In the opinion of *Linnaeus*, the powdered root of the sweet flag might supply the place of our foreign spices ; and is the only genuine aromatic plant of cold climates. Others assert, that agues have been cured by it, after the Peruvian bark had failed. These roots are commonly imported from the Levant, but those reared in Britain are in no respect inferior. The fresh root candied, is used at Constantinople as a preservative against epidemic diseases.

According to *Bechstein*, the leaves may be employed for dispelling many noxious insects : hence we recommend them particularly against the *moths* infesting woollen cloth, and the destructive worms in books ; for which purpose they might, every year, be replaced in the corners of drawers and shelves. *M. Bartsch* has used the whole plant for tanning leather ; and *Dr. Bohmer* remarks that the French *snuff*, called *a-la-violette*, probably receives its peculiar scent from this fragrant root.—Neither horses, cows, goats, sheep, nor hogs, will eat the herb or roots of this vegetable.

FLAX, THE PURGING.—Or *Mill-mountain*, is an annual plant, growing in dry meadows and pastures, and flowering from June to August. It is eaten by horses, sheep, and goats.—An infusion of two drams of the dried plant is an excellent laxative, and has been given with advantage in obstinate rheumatisms.

FLAX, TOAD, THE COMMON YELLOW.—An indigenous perennial plant, which grows in barren meadows, pastures, and road sides, and is in flower from July to September.

Cows, horses, and swine, refuse this noxious and, according to *Bechstein*, poisonous weed ; nor is it relished by sheep and goats.—An infusion of the leaves, however, has been used as a diuretic, and purgative ; a decoction of the flowers is said to be

very efficacious in cutaneous disorders. An ointment prepared from the leaves, is reputed to afford considerable relief in that painful malady, the piles.—In dyeing, *Suckow*, and *Dambourne* remark, that the fresh herb, while in blossom, imparted an olive colour to woollen cloth and silk. *Bohmer* thus obtained only a weak yellow liquor, of a greenish shade.

FLEA-BANE, THE GREAT.—Or *Plowman's Spikenard*, an indigenous biennial plant, growing in mountainous meadows and pastures, in a calcareous soil, and producing yellow flowers in the months of July and August.

This plant possesses the odour of musk ; the smoke, occasioned by burning it, was formerly much employed for the destruction of fleas, gnats, and other insects. It was also recommended in cutaneous disorders, but is at present exploded from the shops.—In a similar manner has the **CANADA FLEA-BANE**, lost its reputation, both for banishing fleas, and answering other superstitious incantations ; for which it was celebrated in former times.

FLOWER-DE-LUCE.—Or *Flag*, a genus of plants consisting of 54 species, the following three of which are natives of Britain :

1. The **WATER FLOWER-DE-LUCE**, or *Yellow Flag* ; which is perennial, grows on the banks of rivers, in marshes and wet meadows, and produces large yellow flowers in the month of July. The leaves of this plant, when fresh, are eaten by goats, and when in a dry state, by cows, but they are refused by horses and hogs.—On account of its poisonous nature to all cattle, except sheep, this vegetable ought to be carefully extirpated from meadow-grounds, and their contiguous ditches. The juice of the fresh root is very acrid, and has been found to produce plentiful evacuations from the bowels, after other powerful remedies had failed : by continuing its use, it cured an obstinate dropsy. For this purpose, it has been taken in doses of 80 drops, every second or third hour ; but the degree of its acrimony is so uncertain, that it can never be generally used.—With more advantage and safety we may recommend the whole of this strongly astringent plant to the *tanner* ; and its flowers to the *dyer*, for extracting a beautiful yellow ; but the root, in particular, as a substitute for galls in preparing a black dye, or ink, with vitriol of iron.—Lastly, the roots of this species are stated to be an antidote to the bite of a mad-dog ; and, after having been mixed with the food of some hogs that had been bitten, they escaped the disease, while others, injured by the same dog, died raving mad.

2. The **STINKING FLOWER-DE-LUCE**, *Gladwyn*, or *Flag*, which is found on the hedge-banks, and sloping grounds, particularly in the south-western counties of England : it is perennial, and produces flowers of a purplish ash-colour, which lose their smell

during the night, and blow in the months of June and July.—This plant is refused by horses, sheep, and goats; its leaves are very fetid, and, when bruised, smell like rancid bacon. The juice of the roots of this, as well as the preceding species, have occasionally been used to excite sneezing; which is a dangerous practice, and has sometimes been attended with violent convulsions. It may, therefore, be more usefully employed for the destruction of bugs and other vermin.

3. The BULBOUSROOTED FLOUR-DE-LUCE, or Flag, which has long been cultivated in our gardens, on account of its beauty. It has lately been found wild in the county of Worcester, and produces generally purplish-blue flowers.—M. Schulze informs us, in his "*Social Narratives*" (in German,) that he made the following experiments with the azure-blue flowers of this neglected plant: He first bruised the flower-leaves in a marble mortar, expressed their juice, collected it in a shallow glass vessel, and, after adding a small portion of finely-pulverized alum, he suffered it to dry under shade, in the open air: thus, he obtained a very beautiful green pigment. The flowers, however, should be gathered in dry weather, their white parts carefully separated from the coloured leaves, and the pounded alum gradually mixed with the juice, till the desired colour becomes perceptible. With this preparation, both linen and silk were dyed of a remarkably fine and permanent green colour.—Prof. Gmelin, in his German "*Technical Chemistry*," gives the following recipe for preparing a lively green water-colour, Take equal quantities of the expressed juice of the bulbous-rooted flag and rue, and add such a proportion of a strong solution of alum, as is required to produce the colour.

FLUELLIN, THE SHARP POINTED.—Is an indigenous annual plant, growing in corn-fields, and flowering from July to September.—The expressed juice of this plant has been highly recommended as an aperient, resolvent, and vulnerary; which properties an infusion of it possesses, though in an inferior degree.—An ointment is prepared from this juice, which was formerly in great repute as a remedy in leprous, scrophulous, and cancerous cases. It is at present employed only by empiries, both male and female, who pretend to cure with it cancers of every description.

FLY, THE CATCH.—Or *Campion*, a numerous genus of plants amounting to 63 species, eleven of which are indigenous. None of these have hitherto been employed to any other useful purpose than that of serving as pasturage for cattle. There is, however, one remarkable species of this plant, namely, the *Nottingham Catch-Fly*, that grows on dry or hilly pastures and walls, produces root-leaves on short leaf-stalks, forming a close turf; and bears white flowers in June or July, which are eagerly visited

by bees, and might, therefore, be cultivated with advantage, in situations where these industrious creatures are reared.

FOOLS-PARSLEY.—Or *Lesser Hemlock*, an indigenous plant, growing in corn-fields and kitchen-gardens, and flowering in the months of August and September.

This noxious weed greatly resembles the common parsley, for which it is sometimes mistaken; but may be easily distinguished by its glossy surface, and total want of odour: when eaten among other plants, it occasions vomiting, violent colic, and other painful symptoms.—Such accidents, however, might be easily avoided, by cultivating only the curled-leaved parsley, in our gardens.—The fools-parsley is eaten by horses, cows, sheep, and goats; but is pernicious to sheep.

FOX-GLOVE, THE COMMON.—Or *Purple*, an indigenous biennial plant, growing in meadows, on hedge-banks, and the sides of hills; in dry, gravelly, or sandy soils, but seldom on flat grounds, unless in very dry situations: for, though the seeds vegetate, the roots decay in the winter, and the plant consequently perishes. It abounds in the Midland, but is rarely seen in the Eastern counties, and produces purple flowers, which blow in the months of June and July.

The leaves of the fox-glove have a bitter nauseous taste, but do not possess any peculiar smell: they have long been used with considerable advantage, in the preparation of an ointment for sores and scrophulous tumors. If taken internally, this plant is a violent purgative and emetic:—in the country, a decoction of it, with the polypody of the oak, is frequently given in epileptic fits.

An infusion of two drams of the leaf, in a pint of water, given in doses of half an ounce, till it begin to operate, is recommended for the dropsy, especially that of the breast; in which disorder it has proved of the greatest utility: the plentiful use of diluents is ordered during its operation. It has likewise been taken in substance, at bed-time, in doses of one, two, or three grains of the leaves pulverized; and often operates as a very powerful diuretic, without producing any other evacuation. Sometimes, however, this dose excites severe and unexpected vomiting; it has also the remarkable property of rendering the pulse slower; frequently occasions distressing giddiness, and affects the power of vision.

The Fox-glove has, within a few years, been advantageously employed in *pulmonary consumptions*, and other disorders, where the frequency of the pulse requires to be abated, with a view to repress the irregular action of the arterial system, and arrest the progress of disease: and though we doubt whether any thing like medicine, or facitious air, will ever be discovered for the cure of that merciless disorder, yet we entertain a very high

opinion of the powers of the fox-glove, if timely administered; but we think it our duty to add, that it is one of those active and virulent plants which cannot safely be entrusted to inexperienced persons, or empiries.

As every part of fox-glove has a very bitter and acrid taste, by which it is apt to corrode the mouth, throat and stomach, children ought to be warned against its poisonous properties.—Sweet butter-milk, or oil and vinegar, in large draughts, will be the the most effectual antidotes.

FOX-TAIL-GRASS.—A genus of plants consisting of 18 species, of which Dr. *Smith* enumerates four, and Dr. *Withering* six, to be natives of England. the principal of these are the following:

1. The Meadow Fox-tail-grass, which is perennial, grows in meadows and pastures, and flowers in the month of May or June. This plant thrives naturally in moist soils only; it affords the best grass that can be sown on low meadows, or in boggy places which have been newly drained. Its seeds ripen early, and are easily collected. Although sheep pasturing on it, are said to acquire a coarser fleece, yet it furnishes a most grateful food to cattle; but, as the larvae of a species of flies devour the seeds to so great an extent, that in many spikes scarcely one will be found perfect, its cultivation is rather precarious. These insects are very minute, of an orange colour, and are the prey of the Field-bug, whose mouth is peculiarly formed for searching the husks of grasses.

2. The Bulbous Fox-tail-grass, which is perennial, grows in moist marshy situations, and flowers in the months of June and July. This species is particularly adapted for consolidating the surface of fenny situations. Hence it deserves to be more generally cultivated in such soils, in order to prevent them from being poached by the feet of cattle.

3. The Slender Fox-tail-grass, which is likewise perennial, grows in corn-fields or on road sides, and flowers in the month of July. This plant is provincially called *black bent*; and, though a very troublesome weed, when growing among wheat. it might be sown with advantage as a meadow-grass; for, in its green state, it is much relished by cattle; and *Bechstein* asserts, that cows fed with it, give an unusual quantity of milk.

FRENCH-MERCURY.—An indigenous plant, growing on waste places, and dunghills in the vicinity of towns; and flowering in the months of August and September. The whole of this vegetable is mucilaginous: when cultivated in gardens, it is dressed like spinach, to which it is said to be greatly superior; but, if eaten in a large quantity, it is aperient.—In France, according to *Tournefort*, a syrup is prepared from the juice of the mercury, 2 oz. of which are given at one doze as a laxative: it

is also used in clysters, and pessaries, in the proportion of one part of honey and two of the juice.—In England, this plant was formerly in great repute as an emollient, but is at present disregarded.—As an article of diet, it may be useful to persons liable to costiveness.

FRENCH-WHEAT.—See *Buckwheat*.

FUMITORY.—A genus of plants comprising nineteen species, five or six of which are natives; and among these the principal are:

1. The Common Fumitory. It is annual, grows in corn-fields, hedge-banks and gardens, and is in flower from May to August.—This plant is eaten by cows and sheep; goats dislike it, except the young shoots, but horses totally refuse it:—The leaves are succulent, saline, and bitter. The expressed juice, in doses of two or three ounces, is strongly recommended in hypochondriacal, scorbutic, and such habits as abound with vitiated humours. It corrects acidity, and strengthens the stomach. *Hoffman*, in these cases, preferred it to all other medicines. On account of its efficacy in opening obstructions, and what are professionally called *infarctions* of the viscera, especially those of the liver, an extract of it deserves to be kept in shops. If the juice be taken in large doses, it proves both diuretic and laxative: it may also be mixed with whey, and used as a common drink.—An infusion of the leaves of this plant is employed as a cosmetic, to remove freckles from the skin.

2. The Solid Bulbous Fumitory, which grows in woods and parks (for instance, *Levan's Park*,) and flowers in April or May.—*Bechstein* relates, that this plant affords a certain remedy for the extermination of frogs in fish-ponds.

FURZE.—An indigenous plant, consisting of two species, the principal of which is, the *Common Furze*, *Whins*, or *Gorse* which grows on heaths, road-sides, and pastures. It abounds particularly in the county of Cornwall, where it is very productive, growing to the height of six or eight feet; and flowering from May till late in autumn.

Furze thrives in a light sandy soil, though it grows more luxuriantly in rich land. It is propagated from seed, which is sown in the months of February, March, and April, or in the beginning of May, in the proportion of 6lbs. to an acre; either alone, or with barley, oats, or buck-wheat. But it is not mowed till the year after it has been sown, in the month of October, or somewhat earlier, when it will continue till Christmas, and be fit for use till March.

Furze will grow for several years, and produce from ten to fifteen tons per acre, which, in the feeding of cattle, are equal to the same quantity of hay: hence it is in some places regularly stacked.

~~~~~

This plant is of the greatest utility, especially as food for horses, which, when it is recently bruised, eat it in preference to hay, and even corn. Goats and sheep likewise feed upon the tender tops.—Cows also, that are fed with it, yield nearly the same proportion of pure and untainted milk, as when pasturing on meadow grass. For this purpose, the furze is crushed and reduced in a machine, consisting of a large circular stone, set on its edge, with a wooden axis passing through the centre. One end of this axis is fixed upon a pivot placed in the centre of a circular area, and at the other end is fastened a yoke, to which a draught-horse is attached. As the animal moves, the stone revolves round its axis in a circular groove, or trough of hewn stone, in a manner similar to sugar-bakers, or tanners-mills. In this trough the whins or furze are placed, and bruised by the weight of the stone, as it passes over them: after being well crushed, they are raised up (by means of a three-pronged fork) in the form of a kind of matted cake, which being set upright, is again broken by the wheel revolving on its axis. Thus, the operation is continued, new surfaces being successively presented to the action of the wheel, till the whole is reduced to a soft pulpy mass.—During the continuance of this process, however, it will be requisite to pour sufficient water on the furze, at different times, as, without such precaution, the plant could with difficulty be rendered soft enough to be eaten by cattle. To the furze thus crushed, chopped straw is sometimes added, in the proportion of 1 cwt. to a ton of furze. This operation may be effectually performed by the mills employed in grinding apples, or expressing oil. But, in some parts of England, the prickly points of the whins are merely broken with heavy mallets on blocks of wood, and in this state given to cattle, which eat them eagerly.

Furze is likewise employed for heating ovens, as it burns rapidly, and emits a great degree of heat; when consumed, its ashes are used for a ley, which is of considerable service in washing course linen.

This plant is also eminently adapted to the formation of fences, especially on the banks of rivers; as by its close and prickly branches it retains the collected earth, and is more easily procured than faggots.—The fresh and dried flowers of this plant afford, in dyeing, a fine yellow colour.

GALE, THE SWEET.—*Sweet Willow*, or *Dutch Mirtle*, is an indigenous low plant, growing abundantly on bogs, in gravelly soils, and flowering in the month of May.—It is eaten by horses and goats, but not relished by sheep and cows.

This plant was formerly, by the northern nations, used as a substitute for hops; but unless it be boiled for a considerable time, it is apt to occasion the head-ach.—*Dr. Withering* is of



opinion, that from the catkins of this vegetable, if gathered in sufficient quantities, good candles might be manufactured; as, upon boiling those in water, a waxy scum may be perceived to rise to the surface.—In the currying of leather especially the softer kinds, this shrub is of the greatest utility. When reduced to powder, it affords a grateful perfume in the composition of ointments; and *Bechstein* asserts, that it is likewise serviceable for the expulsion of *moths* from cloths.—The Norwegians smoke the leaves mixed with tobacco, which they are supposed greatly to improve.—A decoction of the plant is used for the destruction of bugs and other vermin.—In dyeing, the bruised flower-buds and seeds yield a yellow colour.—Lastly, an odoriferous essential oil may be distilled from this aromatic shrub.

The sweet gale may be propagated either by seed, or, more speedily, by the divided roots, which thrive in almost every kind of soil, if it be sufficiently watered.

There is another species of the gale, namely, the *myrica cerifera*, from which the inhabitants of Louisiana prepare *myrtle candles*; it is also used for tanning calf-skins.—It may be reared in gardens by the seed, which produces numerous sprigs; but, as the stems are apt to decay, they ought to be changed, at least once in ten years, by new root-stalks.

**GARLIC.**—A genus of plants comprising 54, species, seven of which are indigenous: of these, the following are the principal:

1. The Streaked Field-garlic, or Wild Garlic, which is perennial; grows in pastures, meadows, and among corn; and produces whitish-green blossoms in the month of July.—It is eaten by cows, goats, sheep, and hogs:—the tender leaves of this species are usually boiled in soups, or fried with other herbs, and form an wholesome article of food.

2. The Broad-leaved Garlic, or Ramsons, which is also perennial; grows in woods, hedges, and meadows; and produces large white flowers, that blow in the months of May and June. This species is eaten by cows, but it communicates its flavour to the milk and butter to such a degree as to render those articles offensive during the spring.—It affords an excellent remedy for dispelling rats and moles; nor will this plant suffer any vegetable set near it to thrive:—An infusion of it in brandy is esteemed, according to Mr. *Pennant*, a good medicine for the gravel.—The inhabitants of Kamtschatka find it of great service in removing the scurvy, even in the most advanced stages.

3. The Chive, or Chived Garlic, abounds in meadows and pastures; and flowers in the month of June. It is propagated by parting the roots, and was formerly in great request as an ingredient in salads, during the spring; but it has been latterly

neglected: its taste, smell, &c. are milder than those of the common onion.

Beside these species, which are but little cultivated, there is another, that deserves to be noticed, viz. the Common Garlic. It is a native of Sicily, whence it has been introduced into our gardens.—This is a very hardy plant, and will thrive in almost every soil or situation. It is propagated either by the roots or seeds: the former ought to be set in autumn, so that they may strike firmly in the ground before the spring: which is requisite to make them flower vigorously the ensuing summer. When raised from seeds, it should be sown on a border of common earth, either in autumn, shortly after the seeds are ripe, or in the succeeding spring: they require only to be kept clear of weeds; and, in the following autumn, may be transplanted to the spot where they are destined to remain.

Every part of this plant, but especially the root, has a pungent, acrimonious, and almost caustic taste, with a peculiarly strong, and, to many persons, offensive smell. Several nations, however, such as the Russians, Poles, and Hungarians, are very partial to it; and the Jews eat it to excess. Its odour is extremely penetrating and diffusive; and, when the root is taken into the stomach, its scent is communicated to the various excretions, and perspires through the pores of the skin.—The juice of this pungent root may be employed with advantage, for cementing broken glass and china, or porcelain.

Garlic differs from the onion, only by being more powerful in its effects: they are both stimulants; assist digestion; relieve the bowels; expel flatulency; and are beneficial in disorders proceeding from too great a degree of visciditv: they also increase the appetite; and, as their stimulating properties are diffused over the whole system, they may be considered as useful condiments with the food of phlegmatic persons, or those, whose secretions are in a languid state; but their use may prove very pernicious to individuals who are liable to inflammatory complaints, or in whom a great degree of irritability prevails.

The medical properties of garlic are various: it has long been in estimation as an expectorant in pituitous asthmas, and other pulmonary affections that are not accompanied with inflammation.

It is also frequently of service in the dropsy; at the commencement of which it has been especially recommended by *Sedenham*, in the quantity of one or two drams in substance, for a dose.—Externally applied, it blisters the skin. When made into an unguent, it is said to discuss cold tumors, and has been celebrated for its efficacy in cutaneous complaints:—in certain states of deafness, a small clove or bulb of the root, when enveloped in gauze, or muslin, and introduced into the ear, has been found an efficacious remedy.

GERMANDER.—A genus of plants consisting of sixty-eight species, three of which only are natives.

1. The Wood Germander, or wood sage, which is perennial; grows in woods, heaths, thickets, and hedge-banks; and flowers in the month of July. It has a bitter taste, and in smell resembles hops, with a small mixture of garlic: in the Isle of Jersey, it is used in brewing, as a substitute for hops,

2. The Water Germander, which is also perennial; grows in damp and marshy situations; and produces purplish flowers in the months of July and August. It is eaten by sheep and goats, but refused by horses, hogs, and cows; though the latter will eat it when impelled by hunger, in consequence of which, their milk acquires the flavour of garlic.—The fresh leaves of the water germander are bitter, and somewhat pungent; when pulverized, they have been used for the expulsion of worms;—a decoction of the whole plant is said to be a good fomentation in gangrenes.

3. The Common Germander, is found in the borders of corn-fields that are remote from houses, in ruins, and upon ancient walls; it produces reddish purple flowers, which blow in the month of June or July. The leaves and tops of this species have a moderately bitter taste, accompanied with a weak aromatic flavour. It was formerly in great esteem as an aperient and corroborant; it is strongly recommended in agues, rheumatism, and gout, especially to weak and relaxed constitutions.—In tanning, it has been employed with advantage by *Bautsch*.

There is an exotic species of the germander, viz. the *Teucrium marum*, or marum germander, which is a native of Spain, whence it has been introduced into our gardens, under the name of *Cat-thyme*. It has received this appellation, from the uncommon fondness which cats instinctively display for this vegetable. Its leaves and tender branches, on being rubbed between the fingers, when fresh, emit a volatile aromatic colour, which excites sneezing; but to the taste they are somewhat bitter, with a sensation of heat and acrimony.

From the active powers of the marum germander, it has been highly recommended in many diseases that require medicines of a stimulant, aromatic, and deobstruent quality.

GERMANDER, THE WILD.—Or *Germander-Speedwell*, an indigenous perennial plant, growing in pastures and the sides of hedges; and flowering in May. It is eaten by cows, goats, sheep, and horses, but refused by hogs.—The leaves of this plant have been recommended as a substitute for tea; but it is chiefly used as a mild astringent.

GLADIOLE.—See *Flowering Rush*.

GLADWYN.—Or GLADDON, See *Stinking Flower-de-Lucc*.



GOAT'S-BEARD.—A genus of plants comprising 16 species, two of which are indigenous.

1. The Yellow Goat's-beard, or Go-to-bed-at-noon (because its blossoms close about the middle of the day) grows in meadows and pastures, where it flowers in June.—Dr. *Withering*, remarks, that the young roots of this plant, in spring, may be boiled and eaten like asparagus, as they possess, a similar flavour, and are nearly as nutritious.

2. The Purple Goat's-beard, is also found in meadows, and not unfrequently in upland pastures; it flowers in the month of May.—The succulent roots of this vegetable, when cultivated in gardens, are called *Salsafy*.—Cows, sheep, and horses, eat the whole of this plant; swine devour it with avidity, but it is not relished by goats.—The tender roots afford a delicious salad, and also an excellent substitute for asparagus.

GOLDEN-ROD, THE COMMON.—Or *Wound-wort*, an indigenous perennial plant, growing in woods, hedges, heaths, and copses; and flowering from July to September.

The plant was formerly officinal, and is still in great repute among country people, for its medicinal virtues; but we are inclined to think, it may with greater advantage be employed as a dyeing drug. Both its leaves and flowers impart a beautiful yellow colour; which, according to *Bechstein*, is even superior to that obtained from woad.

GOLD OF PLEASURE.—Or *Common Camline*, an indigenous plant, growing in corn-fields, frequently among flax (with the seeds of which it is supposed to have been imported from foreign countries);—it flowers in June.

This plant is cultivated in Germany, on account of its seeds, from which an excellent oil is expressed: one bushel of the former yielding from 24 to 23lbs. of the latter, which is equally useful for culinary and other economical purposes.

According to German writers, the seeds of the Common Camline afford a larger proportion of lamp-oil, and which is of a finer quality than that obtained from rape-seed; though it is more liable to become rancid. Nevertheless, the culture of the former strongly recommends itself to the farmer; as it will grow in unfavourable weather, when flax cannot prosper. The Gold of Pleasure, however, requires a well prepared soil, should be thinly sown, and not harrowed in too deep: if properly cultivated, it yields more than one hundred-fold.

The seeds of Camline are likewise a favourite food with geese and other poultry.—Horses, cows, goats, and sheep, relish the plant.

GOOD-KING-HENRY.—See Perennial *Goose-foot*.

GOOSEBERRY, THE ROUGH.—Or *Pea-lerry*, an indigenous shrub growing in woods and hedges, especially about Darlington, Durham; also, on old buildings and church-towers, whither it has probably been transplanted by birds. This useful bush flowers in April, and bears fruit in June or July, which, however, does not acquire its natural vinous flavour in this climate, till August or September.

Although gooseberries are generally eaten, or employed for culinary purposes, before they arrive at perfect maturity, yet being one of the most saccharine productions we possess, they might with more advantage be converted into wine. As each pound of the juice expressed from ripe berries requires only one ounce of soft sugar (whereas the ripest currants require double that quantity) to induce the vinous fermentation, a very excellent and wholesome domestic wine may be made at a trifling expence. After standing several years in bottles well corked, it becomes equal in quality to muscadell, or other sweet Italian wines. If the flower-buds of this shrub be added to a cask of any other flavourless wine, *Bryant* asserts (in his 1st volume of "*Nutritive Plants*," p. 245, German edition) that they impart to it the taste of genuine muscadine.

Wild gooseberries, however, are of a very inferior size to those cultivated in a rich garden soil, especially when improved by inoculation, or engrafting; in which state they frequently attain an uncommon size.

There is another species of this shrub growing wild about woods and hedges, in several places in Cambridgeshire, Oxfordshire, Norfolk, and the Isle of Wight. We allude to the *Smooth Gooseberry*, which can with difficulty be distinguished from the preceding species, either by the flower scales, or even by the smoothness of its berries. Mr. *Robson* assured Dr. *Withering*, that the seeds from the same plant will produce both rough and smooth gooseberries. The last-mentioned species, however flowers somewhat later, thrives in almost every soil, and does not attain the size of the rough gooseberry: its yellow berries are transparent, juicy, and contain a great number of seeds.

Beside these, we met with another Linnæan species, or perhaps a variety of the former, called the *Red Gooseberry*, which grows wild in Germany, &c. has somewhat broader leaves than those before described, and produces a red or dark-purple fruit of a very sweet flavour. It thrives remarkably in a fat, light, and sandy clay: we therefore conclude that its berry would be eminently adapted to the preparation of domestic wines.

All the different gooseberries are wholesome fruit, but should not be eaten before they are perfectly ripe; nor is it proper to swallow their stones along with the juice; but the skin may, with probable advantage, be used by those who are accustomed

to take large quantities at one time ; in order to prevent flatulency. It is, however, founded on erroneous notions of their chemical properties, either to boil the *unripe* berries for sauces, or to convert them into domestic wines, which, though more cooling and refreshing, do not possess the delicate flavour, and rich saccharine quality, inherent only in ripe fruit.

GOOSE-CORN.—See *Moss-rush*.

GOOSE-FOOT.—A genus of plants, comprising twenty-seven species, eleven of which are indigenous ; of these the following are the principal :

1. The Perennial Goose-foot, Mercury Goose-foot, or Good King Henry, which grows amongst rubbish, on road-sides, and walls ; and is sometimes found in pastures : it produces purplish-green flowers, that are in bloom from May to August. This plant is cultivated like spinach by the poorer class of people in Lincolnshire : its leaves are frequently boiled in broth ; and the young shoots, when peeled and dressed, are, on account of their flavour, eaten as substitutes for asparagus.—Neither goats nor sheep relish this plant, which is also refused by cows, horses, and hogs. Its roots, however, are frequently given to sheep affected with a cough, and are supposed to afford an excellent medicine for preventing consumption in those animals.

2. The White Goose-foot, or Common Whild Orache, which grows frequently in corn-fields, on old dunghills, rubbish, and in gardens ; and flowers in the months of July and August.—It is eaten by cows, goats, sheep, horses, and hogs, which last devour it with avidity ; but *Linnaeus* asserts that it is totally refused by horses.—According to Prof. *Pallas*, the white goose-foot is a very troublesome weed among corn, on the banks of the Volga, where the German colonists make use of its very abundant seed, by mixing it with bread-corn, and also boiling it separately in the form of *groats*.—*Townsend* relates, that a species of pot-ash, or barilla, is prepared from this plant.

3. The Stinking Goose-foot, or Fetid Orache, an annual plant, growing on road-sides, old walls, and rubbish, and flowering in August.—This species, in a fresh state, has a nauseous taste, and a strong offensive smell, similar to that of putrid salt fish. It is nevertheless eaten by cows, horses, goats, and sheep, but refused by swine.—Though exploded by the London College, Dr. *Cullen* strongly recommends the fetid orache as a powerful antispasmodic, especially in hysterical cases.—*Dambourney* dyed wool of a durable citron colour with a decoction of the whole plant ; but the stuff was previously immersed in a diluted solution of tin ; and though the liquor emitted the unpleasant feter of this vegetable, yet the wool acquired no smell.

4. The Sea Goosefoot, Small Glass-wort, or Sea-blitè, which abounds on the sea-shore, and flowers in the months of July and



August.—Dr. *Withering* mentions it as an excellent pot-herb.—In Siberia, and in Astrakhan, the inhabitants obtain from this plant their *pot-ash*, which probably partakes more of the nature of *soda*.

5. The Upright Blite, Round-leaved Goose-foot, or All-seed Goose-foot, which grows on cultivated ground and dunghills, and flowers in the month of July or August.—This curious plant has not hitherto been converted to any useful purpose; though we believe its numerous seeds might be advantageously employed in feeding poultry. Perhaps it is a variety of the *quinoa*, which grows in the mountains of Peru, where each plant affords upwards of 1000 grains, equal, if not superior, to rice; for we find in the French “*Année Littéraire*” for 1781, that this exotic vegetable is a species of the goose-foot.

GOOSE-GRASS.—Or *Cleavers*, *Clivers*, or *Catchweed*, *Goose-grass*; an indigenous plant, growing in cultivated grounds and hedges, and flowering from June to September.

This succulent vegetable possesses no smell, and is of a somewhat bitter and acrid taste. An ointment prepared of the herb, when bruised and mixed with lard, is said to be an useful application for discussing stumous swellings.

Dr. *Mayerne* informs us, that three ounces of the juice of this plant, taken twice a day in wine, have been found singularly beneficial as an aperient and diuretic in incipient dropsies. Its greatest efficacy, however, is said to be evident in scorbutic complaints, for the cure of which a tea-cupful of its expressed juice is to be taken every morning, for nine or ten days. When the fresh plant cannot be procured, the dried leaves may be infused and drunk like tea.

The branches of this vegetable are employed by the Swedes, as substitutes for a hair-sieve to strain milk. Young geese are exceedingly fond of the leaves; and the whole plant is eaten by horses, cows, sheep and goats.—It is remarkable, that the bones of poultry feeding on the roots of goose-grass, acquire a red colour.

There is another species of this plant, namely, the *Cross-leaved*, *Goose-grass*, *Bed-straw*, or *Cross-wort Madder*, which grows on mountains, rocks, and in gravelly places in Westmoreland and Wales; its stalk attains a height of from one to four feet, and its beautiful white flowers appear in July and August.—In Sweden, the root of this vegetable is known by the name of *mattara*, and is generally employed for dying wool of a fine crimson colour.—According to *Bechstein*, this herb affords a very grateful and wholesome food to cattle.

GORZE.—See *Furze*.

GOUTWEED.—*Herb-gerard*, *Ash-weed*, or *Ground-ash*, an indigenous perennial plant, growing in orchards, gardens, pas-

tures and hedges, and flowering in the months of May and June.

This plant has received its name from its supposed efficacy in relieving the gout. Its leaves are very tender, and may be eaten early in the spring among other pot-herbs; being possessed of nutritive rather than medicinal properties.—Cows, sheep, and goats are remarkably fond of the goutweed, but it is refused by horses.

**GRASSWRACK.**—A perennial native plant, of two species. the principal of which is the Sea-grasswrack, found on sea-shores, and in saltwater ditches near Yarmouth.

This vegetable grows at the bottom of the ocean, as common as the mosses thrive in woods: it is thrown on shore by the tide in such abundance, that mounds or dams, are constructed with its assistance, to prevent the encroachment of the sea. The green leaves are said to be an useful and durable substitute for thatch; when exposed to the air and weather, they become white.—The inhabitants of Gothland, employ the grasswrack as an excellent manure, and likewise for stuffing their beds, as it is softer than hay or straw.—Horses and swine eat this herb, but it is not relished by cows, unless mixed with hay.—The ashes obtained from the whole plant are, with great advantage, employed by the Germans, in the manufacture of glass.

**GROMWELL.**—A genus of perennial plants, comprising several species, the principal of which are:

1. The Common Gromwell, or Gromill, Gray-mill, or Gray-millet, which grows in dry gravelly soils, and flowers in the months of May and June.—The seed of this plant affords excellent flour, which might in times of scarcity be converted into bread. From the rind of the root, a red colour may be extracted, and it is also employed in the North of Europe as an inoffensive paint for the face, especially by country-girls. Its seeds were formerly medicinal, but possess no peculiar properties; though *Haller* observes that the plant itself is narcotic.

2. THE CORN, or BASTARD GROMWELL.—See *Alkaget*.

**GROUND-ASH.**—See *Goutweed*.

**GROUND-IVY.** See *Alehoop*.

**GROUND-PINE.**—An indigenous plant growing in sandy fallows, and flowering in the months of April and June. It possesses a bitter and acrimonious taste, and though it has often been recommended as a medicine for the cure of the gout, jaundice, and intermitting fevers, yet its real efficacy in these diseases is not ascertained.

**GROUNDSEL, THE COMMON.**—An indigenous plant, growing on cultivated grounds, rubbish, and in court-yards; it flowers from April to September. A strong infusion of this weed excites vomiting; the bruised leaves afford a refrigerant and healing application to boils.—Its seeds is very agreeable to

goldfinches and linnets confined in cages.—Cows do not relish this plant; it is, however, eaten by goats and swine, but refused by horses and sheep

There is another useful species of the groundsel, for which we refer to *Rag-wort*.

**GUELDER-ROSE.**—A genus of plants comprising twenty-two species, two of which are natives of Britain.

1. The Mealy Guelder-rose, Pliant Mealy Tree, or Waysáring Tree, which grows in calcarous soils to the height of 18 or 20 feet, in woods and hedges; it produces large white flowers in May, and black farinaceous berries in October. The young branches and rind of the trunk of this species may be employed for bands and cords. It is, however, chiefly esteemed for its beautiful foliage, which renders it an ornament to parks and plantations. The barks of this root is used for the preparation of bird-lime; the berries attract birds, and are of a drying, astringent nature.

2. The Common Guelder-rose, or Water Elder, which grows in woods and damp hedges; bears white blossoms in May or June, and red berries in September.—When in bloom, this tree exhibits a singularly fine appearance: the flowers though small, are formed into large globular umbels, whence it is sometimes called the *Snow-ball-tree*.—Birds are enticed by the red berries, but will not eat them.—According to *Bechstein*, these berries may be preserved in vinegar, and the tough, hard wood is employed by shoe-makers for small pegs of heels.

**GYPSY-WORT.**—See *Water Horehound*.

**HAIR-GRASS.**—A genus of perennial plants, comprising 24 species; of which 14 are indigenous; and of these the following deserve notice:

1. The Turfy Hair-grass, which grows in moist meadows and woods; flowers from June to August. This plant is frequently found in tufts, and occasions irregularities in the surface of meadows. Produces an abundant quantity of leaves; and being the roughest and coarsest of all the grasses in pasture and meadow grounds, cattle seldom touch them, unless impelled by hunger. It would therefore, amply repay the trouble of eradicating it, and substituting better grasses; for this purpose, the land should be first drained, then the tufts of this noxious weed pared up and burnt. Its ashes are said to afford an excellent manure.—Cows, goats, and swine eat the turfy Hair-grass, but it is refused by horses.

2. The Heath or Waved Mountain Hair-grass, growing on heaths, in wood, and barren pastures; and flowering from June to August.

3. The Silver Hair-grass, which is common in sandy pastures; and flowers in the month of July.



Mr. *Stillingfleet*, in his excellent *Tracts relating to Natural History*, recommends the culture of both these last species, as being particularly well adapted for sheep-walks: for he has observed them always to abound in those counties which are celebrated for delicious mutton.

4. The Water Hair-grass, is found generally on the edges of pools and standing waters; it flowers in the months of June and July—This plant is a wholesome food for cattle, and deserves to be more generally known; as it contributes much to the sweetness of the Cottenham cheese, and to the fine flavour of Cambridge butter.

HARE-BELL.—Or HARE-SQUILL. See Wild *Hyacinth*.

HARE-STRONG.—See Common or Sea *Sulphur-wort*.

HARTS-TONGUE.—See *Spleenwort*.

HAWKWEED.—Or *Hieracium*, a native genus of perennial plants, comprising forty-six species, the principle of which are:

1. The Mouse-ear Hawkweed, which grows in dry meadows, pastures, and on walls; its flowers possess the singular property of opening in the morning, and closing early in the afternoon: they blow from May to September. This species differs from other lactescent plants, being less bitter, and more astringent, on which account it was formerly esteemed in the cure of blood-spitting.—It is considered as noxious to sheep, which are not partial to it; and though eaten by goats, it is refused by horses and cows.

2. The Narrow-leaved Hawkweed, or Umbelled Mouse-ear, thrives on mountains, in the county of Westmorland, and flowers in the month of July. It deserves to be cultivated on the borders of gardens where bees are kept; for, according to *Bechstein*, it furnishes them with an abundance of wax and honey.

HAWTHORN.—A genus of plants, consisting of twenty-five species, three of which are natives of Britain.

1. The White-beam Hawthorn, or Wild Pear-tree, which grows in woods and hedges, especially in mountainous situations with a calcareous soil, and flowers in the month of May. It delights in dry hills, and open exposures, thriving either in gravel or clay. It will bear lopping, and does not prevent grass from growing beneath it. The white-beam hawthorn is eaten by sheep and goats, which last animals devour it with avidity. Its fruit is red, and when mellowed by the autumnal frosts, furnishes a grateful repast;—a spirituous liquor may be obtained from it by distillation. This species seldom produces a good crop of fruit for two years in succession; but its barrenness is amply compensated by the utility of its hard, tough, and smooth wood; which is formed into axle-trees, wheels, walking-sticks, carpenter's

and other tools : its seed should either be sown as soon as it becomes ripe, or preserved in damp sand.

2. The Whitethorn, or May, which grows in hedges, woods, and old parks. This is a very valuable shrub, and, on account of the stillness of its branches, the sharpness of its thorns, and its hardiness in enduring the severest winters without injury, it is universally preferred for making fences and hedges. The berries during winter afford food to various birds, but may be more usefully employed in fattening hogs : the wood is very tough, and, like the white-beam hawthorn, converted into axle-trees and handles for tools.

There are several varieties of this species, of which we shall mention only the celebrated *Glastonbury Thorn*. It is in bloom twice in the year : the winter blossoms (about the size of a sixpence) appear about Christmas, and much earlier, if the winter be very severe. These, however, produce no fruit. This extraordinary thorn has been celebrated for its age, for nearly a whole century ; the oldest inhabitants never having observed it in any other than its present state. The berries of this miraculous variety contain only one seed ; and, when sown, produce plants which differ in no respect from the common hawthorn.

3. The Wild Service-tree, Sorb, or Service Hawthorn, which grows in woods and hedges, and flowers in the month of May. Its dark yellow berries ripen in October, and may be eaten either raw or preserved in sugar. They also yield, on fermentation, a good vinegar, as well as an ardent spirit by distilling them : where they abound, hogs may be easily fattened.

**HAZEL-NUT TREE.**—A genus of plants consisting of four species : one of these is a native of Britain, namely, the *avellana*, or Common Hazel-nut tree. It grows in woods, coppes, and hedges ; flowers in March or April.

All the different species of the hazel are large, hardy, and deciduous shrubs ; they have several varieties, valuable for their fruit, which in a cultivated state, is known under the name of *Filberts*.

These shrubs prosper in almost any soil, or situation ; and may be propagated either by layers, or by planting their nuts in February ; for which purpose the latter should be preserved in sand, in a moist cellar, inaccessible to vermin ; but they should not be secluded from the external air, for want of which they will become mouldy. When reared in coppices, this shrub produces abundance of underwood, that may be cut every 5th, 7th, or 8th year, according to the purpose for which it is designed.

The uses of this wood are various : it is employed for poles, hoops for barrels, spars, hurdles, handles for implements of husbandry, walking-sticks, fishing-rods, &c. Where beautiful

specimens are required for veneering or staining, the roots of the hazel-nut tree are preferable to the branches. In Italy, the chips are used for fining turbid wines; and in countries where yeast is scarce, the twigs of this shrub, dried, and afterwards soaked in the fermenting liquor, serve as a substitute for that article in brewing. Painters and engravers prepare coals for drawing outlines, from the wood of this plant, by the following process: Pieces of dried hazel, about the thickness of a finger, and 4 or 5 inches in length, are put into a large pot filled with sand, and the top of which is closely covered with clay. In this manner they are placed in a potter's oven, or otherwise exposed to a sufficient degree of heat; and, on cooling, the sticks are found to be converted into charcoal, which draws freely, and is easily effaced with India-rubber.

The kernels of the fruit of the hazel-nut tree, though difficult of digestion, have a mild, farinaceous, oily taste, which is agreeable to most palates; yet *filberts* are said to be more nourishing than nuts: both, however, operate as a cathartic, when chewed small and taken in considerable quantities; but produce constipations of the bowels, if swallowed in large pieces; and dysentery, if eaten unripe. A kind of chocolate has been prepared from this fruit, which has also occasionally been converted into bread. An expressed oil is obtained from the nuts, which is little inferior to that of almonds: it is often preferably used by painters, as it readily dries; and chemists employ it as the basis of fragrant oils artificially prepared, because it easily combines with, and retains, odours. An emulsion made of the kernels, and taken with good old mead, is recommended for inveterate dry coughs.—Squirrels and mice are excessively fond of the nuts; goats and horses eat the leaves, but they are refused by sheep and hogs.

HEAD-WARK.—See *Red-Poppy*.

HEART's-EASE.—Or *Herb Trinity*, an indigenous annual plant, growing in corn-fields, &c. It produces generally white and yellow blossoms, intermixed with purple, which flower from May to September. This plant has almost endless varieties, and when reared in gardens, is known under the name of *Pansies*. It was formerly in great repute for epilepsies, asthmas, &c. At present, however, it is used only in the disorder peculiar to children, called *crusta lactea*, or a species of SCALD-HEAD affecting the face. A handful of the fresh, or half a dram of the dried leaves, is boiled in a pint of milk, and if continued to be drunk for some weeks, both in the morning and evening, it has invariably been attended with success.

HEATH.—A genus of plants comprising 100 species, five of which are natives of Britain. The principal of these is the Com-



mon Heath or Ling. It grows on heaths and in woods ; flowers from June to August.

In the island of Islay, in the west of Scotland, a wholesome ale is prepared, by brewing one part of malt, and two parts of the young tops of heath, to which hops are occasionally added.

In England, the common heath is employed in making brooms and faggots, which last are used either as fuel in ovens, or for filling up drains before they are covered.—Horses, sheep, and goats, eat the tender shoots of heath.—The stalks and tops are of considerable service in tanning leather, especially for soles ; and, if woollen cloth be boiled in alum-water, and afterwards in a strong decoction of the tops, it will acquire a fine orange colour.—Bees are very partial to the flowers of this species ; but, where heath abounds, the honey acquires a reddish tint.

HEATH, THE BERRY-BEARING, BLACK CROW-BERRIES.—Or *Crake-berries*, an indigenous plant, growing on moist mountains and elevated heaths, in the driest and most barren lands, as well as in bogs and moorlands. It abounds in Derbyshire, Staffordshire, and the northern counties ; flowers in the months of April and May. Its black berries are eaten by the Highlanders ; but, if taken in large quantities, they occasion violent head-achs ; hence they are more proper for grouse.—The plant is not relished by goats, and is totally refused by horses, cows, and sheep :—if boiled with alum, the berries impart a purplish dye.

HEDGE-HYSSOP.—See Hyssop-leaved *Loose-strife*.

HEDGE-MUSTARD.—See *Mustard*.

HELLEBORE.—A genus of plants consisting of five species, two of which are natives of Britain ; the principal of these is the Fetid Hellebore, Bear's-foot, Ox-lieel, or Setterwort. It grows in meadows, shady places, and hedges ; producing green flowers somewhat tinged with purple at the edges, which blow in the months of March and April.

In a recent state, this species has an extremely fetid smell, accompanied with a bitter taste, which is so remarkably acrid, as to excoriate the mouth and fauces. A decoction of it is, by country people, employed as a cathartic, for which purpose one or two drams are fully sufficient. The dried leaves of the fetid hellebore are sometimes given to children as a vermifuge ; but as their operation is so violent, that a large dose might easily prove fatal, this virulent plant ought to be employed only by farriers.—Beside immediate vomiting, the most proper *antidotes* to every species of the hellebore, are mucilaginous drinks in very large quantities ; such as the decoctions of oatmeal, pearl-barley, linseed, marsh-mallows, &c. or milk and water ; after taking which, the poisonous matter will be most effectually counteracted by diluted vinegar, juice of lemons, or other vegetable acids.

HELME.—See *Sea-Matweed*.

**HEMLOCK.**—A genus of plants comprising five species; one of which is a native of Britain, namely, Common Hemlock; or Kex, a biennial plant, growing in hedges, orchards, rubbish, on cultivated ground and dunghills; it flowers in the months of June and July. Its stalk is more than a yard high, sometimes an inch thick, hollow, marked with many dark-red spots, and knotty; its umbels consist of numerous small white flowers, and the fruit resembles aniseed, but has an unpleasant taste. The whole plant is poisonous; though its leaves were formerly often employed in schirrous tumours of the breast, and cancers; in which painful disorder, though it may not in every case effect a cure, it is a very useful medicine, when duly prepared and administered.

As the Common Hemlock, however, is one of the most deleterious vegetables of this climate, we advise the reader to restrain from meddling with this precarious medicine, and to intrust its preparation to professional hands. If inadvertently taken, this species, as well as the two following kinds of the Hemlock, require similar antidotes and treatment with the Hellebore, of which we have treated in the preceding article.

**HEMLOCK, THE LESSER.**—See Fool's Parsley.

**HEMLOCK, THE WATER.**—A genus of plants consisting of two species, one of which, the Water Hemlock, or Horse-bane, is a native of Britain. It grows in rivers, ditches, and pools: and flowers in the months of June and July. This species is eaten by horses, sheep, and goats, but swine do not relish it, and it is totally refused by cows. It is considered as a fatal poison to horses, which on eating it become paralytic: this affection is occasioned by an insect which is generally found within its stems; the usual antidote is the dung of pigs, which ought to be given to the animal as early as possible.

The leaves of the horse-bane are sometimes employed in discutient cataplasms; its seeds are recommended in intermittent fevers and pulmonary consumptions, but ought to be prescribed by the faculty.

**HEMLOCK, THE LONG-LEAVED WATER.**—Or *Water Cow-bane*, an indigenous perennial plant, growing on the sides of pools and rivers; flowering in the month of August.—It is likewise one of the most virulent vegetable poisons; its root is large, hollow, and contains a very acrid milky juice that soon changes to a saffron-colour, and has a nauseous taste, somewhat similar to that of parsnip: the stem attains a height of four feet.—Early in the spring, when it grows in the water, it is frequently eaten by cows, which are inevitably killed by it; but, as summer advances, its scent becomes stronger, and they carefully avoid it. yet, though it is thus fatal to cows, it is eaten with safety by horses, sheep, and goats, which last devour it with avidity.

HEMP, THE COMMON.—A valuable plant, which grows wild in the East Indies, and is cultivated to a very considerable extent in Britain, particularly in the counties of Sussex and Suffolk.

When fresh, hemp has a strong, narcotic smell: the water in which it has been soaked, is said to be in a high degree poisonous, and to produce fatal effects, immediately after drinking it. The seeds have an unctuous, sweetish taste; they may be triturated with water, or boiled in milk as an emulsion, which is occasionally taken as a domestic remedy in coughs, heat of urine, and similar complaints.

In the Eastern climates, hemp-leaves are used like opium, and possess similar intoxicating properties. The Russians and Poles, even of the higher classes, bruise or roast the seeds, mix them with salt, and eat them on bread.—Birds, kept in cages, are likewise fond of this oily seed; but they should not be indulged in its constant use, which is apt to render them prematurely old, blind, and at length consumptive.

HEN-BANE.—A genus of plants comprising nine species, one of which is a native of Britain, namely, the Common Hen-bane. It abounds in villages, road-sides, and among rubbish; and flowers in the month of July. Neither horses, cows, swine, nor sheep, will touch this plant, though the animals last mentioned are supposed to eat it when young:—It is not relished by goats.

The seeds, leaves, and roots of the common hen-bane, taken internally, are reputed to be poisonous; and numerous instances have been recorded of their virulent effects. The general consequences of eating them are, convulsions, madness, and death; though Dr. *Smith*, states that he has eaten the seeds with impunity. The leaves, if scattered about a house, are said to drive away mice and rats: when bruised, they emit an odour resembling that of tobacco, and are so powerfully narcotic, that their exhalation occasions the head-ach and giddiness. The whole plant is fatal to poultry; it intoxicates hogs; but cows, horses, dogs, and goats, are able to bear a tolerable portion before they are affected.—In superstitious ages, the famous *sorcerer's ointment* was prepared from the leaves of the hen-bane, which produced a kind of delirious trance, or furious inspiration, on those who were anointed with this poisonous salve. Malignant persons, even in modern times, appear to be well acquainted with the properties and effects of the hen-bane: and the iniquities lately practised in a village near Newport, Salop, with a preparation of this powerful plant, almost exceed belief: especially as they were directed by one branch of a numerous family against another, not even excepting infants. When suspicions arose against those miscreants who were guilty of secretly mixing this baneful vegetable with ale and beer, they had the inhuman audacity to introduce the poison between the soles of the shoes; and after these were



secured, between the seams of shirts that were suspended on the hedge.—We have mentioned these flagrant instances of depravity, in order to caution the credulous reader, and to shew that the extraordinary effects of this poisonous application arise from natural causes, and not to be ascribed to witchcraft, as was unfortunately the case in Shropshire, till the whole mystery was satisfactorily explained. The writer of this article, having contributed to detect the delusion, thinks it his duty to warn the public against certain grave and whimsical matrons, as well as old men lurking about country places, who, under the pretence of fortune-telling, and amusing the harmless listeners with spellcraft, cunningly enter into the secret history of different families, avail themselves of the most powerful herbs, and thus become subservient to the most nefarious purposes.

Notwithstanding these virulent properties, the hen-bane has lately been employed with considerable success in the most obstinate diseases, such as epilepsy, internal spasms, madness and melancholy; though we trust that no circumspect person will ever resort to its use, without consulting a medical friend.—If, however, any small portion of the leaves should have been accidentally swallowed, brisk emetics ought to be instantly taken; and, after discharging the contents of the stomach, it will be necessary to administer emollient and oily clysters, to repeat them as often as they are ejected, and to drink as large portions of vinegar or juice of lemons diluted with water, as the stomach is able to support.

In recent cases, where the poisonous ointment of hen-bane has been absorbed by the skin, mild sudorifics, joined with mercurial frictions, will then be very proper; in order to excite a slight salivation, and expel the virus; but, if some time after the accident has elapsed, and the patient become delirious, paralytic, consumptive, or blind, recourse must be had to professional advice. (Dr. *Willich's* Domestic Ency. vol. 2d, page 458.)

HEN-BIT.—See *Fetid Horchound*.

HEP-TREE.—See *Dog-rose*.

HERB-BENNET.—See *Common Avena*.

HERB-CHRISTOPHER.—See *Christopher*, the Herb.

HERB-GERARD.—See *Gout-weed*.

HERB-PARIS.—Or *True-love*, *One-berry*, or *Four leaved True-love*, an indigenous plant, growing in woods and shady places; and flowering in the month of May or June.

The dark, brown berries of this plant, possess a narcotic smell, and are fatal to poultry. If inadvertently eaten by children or adults, they occasion vomiting and spasms in the stomach. The expressed juice of the berries, however, is said to be useful in inflammations of the eyes; and both the leaves and berries possess similar properties with opium.—According to *Linnaeus*, the root

of the Herb-Paris may be employed as a substitute for Ipecacuanha ; for it excites vomiting, if given in a double proportion.—*Bohmer* remarks, that the dried leaves impart a fine yellow colour to yarn or linen-cloth, which has been prepared in alum-water.

HERB-ROBERT.—Or *Fetid Cranes-bill*, an indigenous annual plant, growing on walls, hedges, rubbish, and stony places ; flowering from May to October. This herb is in great repute among many farmers, for its efficacy against the staling of blood, and the bloody flux in cattle ; in which cases it is said to be preferable to most of the remedies used on such occasions.

In Germany, the Herb-Robert is employed in the process of tanning ; and *Dambourney* obtained from this, as well as the other species of Geranium, a more or less durable yellow dye.

HOG's-FENNEL.—See Common or Sea Sulphur-wort.

HOG-WEED.—See Cow-parsnip.

HOLLY.—A genus of shrubs consisting of 16 species ; one of which is a native of Britain, namely, Common Holly-tree : it grows in woods or hedges, and produces small whitish flowers in the month of May, which are succeeded by scarlet berries that are ripe in December.

This evergreen is propagated by seed : for which purpose the berries are to be put into the ground for one year, after which they should be taken up, and sown at Michaelmas : the young plants will appear in the succeeding year. These are to be transplanted in the summer ; and, if the operation be carefully performed, their growth will be rapid, especially if they be watered in dry seasons, and the soil about the roots be frequently loosened. There is a great variety of this cultivated shrub, all of which are propagated by budding, or engrafting them on stocks of the common green holly.

This species is of great utility ; the croppings of its leaves afford, in winter, a grateful food to sheep ; and its berries support the feathered creation, during that inclement season. The holly makes an impenetrable fence, and is eminently calculated for the formation of hedges, as it admits of being cropped, and retains its verdure, and the beauty of its scarlet berries, without receiving any injury from the severest winters. The common *birdlime* is prepared from the bark, after it has been fermented, and cleared from the woody fibres. Its wood is much used in veneering, and is frequently stained black, to imitate ebony. It is likewise advantageously employed in the making of handles for knives, and cogs for the wheels of mills.

In medicine, the leaves of the holly have lately been employed with uncommon success in cases of the gout, agues, colics, &c. the birdlime obtained from the bark is said to be an excellent application to obstinate swellings.

HONESTY.—See Travellers Joy.

HONEYWORT, THE HEDGE.—See Bastard Stone *Parsley*.

HONEY-SUCKLE.—A genus of plants consisting of 20 species, two of which are natives of Britain, viz.

1. The Common or Woodbine Honey-suckle, which grows in hedges and woods, and flowers from June to August. It is eaten by cows, goats, and sheep, but refused by horses.—The beauty and fragrance of its variegated flowers, render this species a pleasing ornament of our gardens, hedges, and harbors. The best as well as the easiest method of propagating it, is by layers and cuttings, both of which readily strike root, and form plants that are fit to be set out in one year.—The ripe berries are strongly purgative.

2. The Upright Honey-suckle, which grows on walls and in hedges; it flowers in May.—According to *Linnaeus*, this shrub forms excellent garden hedges in a dry soil, especially where flocks of sheep are frequently passing, as these animals do not eat the leaves. Its wood is extremely hard, and makes the best ram-rods, as well as pegs, or pins for musical instruments, teeth for rakes, and similar articles.—The small reddish and juicy berries excite vomiting, and are so powerfully laxative, that they are not touched even by birds.

HONEY-SUCKLE, THE DWARF.—See Dwarf *Cornel*.

HOP, THE COMMON.—An indigenous plant, growing in hedges, and flowering in June.

The hop is a most valuable plant: in its wild state it is relished by cows, horses, goats, sheep, and swine. When cultivated, its young tops are eaten, early in the spring, as substitutes for asparagus, being wholesome and aperient; they are sold under the name of *Hop-tops*.

The principal use of hops, however, is in brewing, for the preservation of malt liquors, which are thus rendered more salubrious, and less liable to become sour.

A decoction of hops diluted with water, and given to cattle in very severe weather, is said to be of great service, & remarkably to improve their strength.—From the leaves and flowery stalks of this plant, when dried, *Dambourney* dyed wool of a fine cinamon brown, having previously dipped it in a diluted solution of bismuth.—*Berthollet* remarks, that the expressed juice of hop-bines affords a very permanent red-brown colour.

In medicine, decoctions and syrups of hop-flowers are said to be attended with much benefit in pestilential fevers: a pillow filled with them, and laid beneath the head, has been found to procure sleep to patients afflicted with delirious fevers.—The heads and tendrils are likewise of considerable service in the scurvy, and other cutaneous affections.

HOP-TREFOIL.—See *Clover*, the Hop.

HORSEHOUND, THE WHITE.—A genus of plants com-



prising 12 species, one of which only is indigenous, viz.—*Common White Horehound*, which grows on road sides, and among rubbish ; it flowers from July to September.

This very bitter plant possesses an odour sufficiently grateful ; when given in large doses, it operates as a purgative. It is reputed to be both attenuant and resolvent ; an infusion in the leaves in water, sweetened with honey, is recommended for asthmatic and phthysical complaints, as well as in most other diseases of the breast and lungs.—We believe, however, it may with equal, or greater advantage, be employed in currying or tanning soft leather.

Bees collect honey from the flowers of the *Common White Horehound*, but the herb is not eaten by either horses, cows, sheep, or goats.

**HOREHOUND, THE BLACK, FETID HOREHOUND.**—Or *Hen-bit*, an indigenous perennial plant, growing on rubbish and in hedges ; flowering in the months of July and August.—No species of cattle will touch this vegetable, which is, nevertheless, highly prized by the Swedes, who consider it as an almost universal remedy in the diseases of cattle.

A strong decoction of the *Fetid Horehound* has been much recommended in hysterical and hypochondriacal cases. An infusion, or tea, made of equal parts of this plant, of betony leaves, and white horehound, is asserted by *Ray*, both to prevent the gout, and mitigate the attacks of that painful disorder, if three or four tea-cupfuls of it be regularly drunk every day.

**HOREHOUND, THE WATER.**—Or *Gypsywort*, an indigenous perennial plant, which grows on sandy ground, on the banks of streams and ponds ; it flowers from July to September.

The French manufacturers are chiefly indebted to this plant for the deep black colour of their cloth ; its juice imparts a permanent dye to wool, silk and linen, and is much used by travelling gypsies, for the purpose of staining their faces.

**HORNED POPPY.**—See *Poppy*, the Horned.

**HORSE-RADISH.**—An indigenous perennial plant, growing on the sides of ditches, the banks of rivers, and other damp places ; flowering in the month of May.

It has a strong pungent smell ; a penetrating acrid taste ; and is refused by every kind of cattle.—The root, when scraped, is much used at the table as a condiment for fish, roast beef, &c. it is also employed for many other culinary purposes ; and might in times of scarcity, afford flour for bread. With this intention, however, the roots ought to be collected in autumn, and treated in the manner already described.—But, if horse-radish be intended for immediate use, it ought to be dug out of the ground *fresh*, only from October to March ; or to be gathered in the spring, then dried, reduced to powder, and preserved in bottles

closely stopped, for occasional use; when it should be previously moistened with spring water.—When steeped and digested in vinegar, during a fortnight, this root is said effectually to remove freckles in the face.

In paralytic complaints, horse-radish has sometimes been applied, with advantage, as a stimulating remedy to the parts affected.—A strong infusion of it excites vomiting; and is greatly recommended by *Sydenham* in dropsies, particularly such as succeed intermittent fevers.—Prof. *Beckmann* mentions this vegetable among the most proper substances for tanning or currying leather.

**HORSE-TAIL** —A genus of perennial plants, comprising eight species, six of which are indigenous: of these, the following are the principal:

1. The Wood-horse-tail, which grows in moist woods, shady places in the vicinity of rivers, and on boggy soils: it flowers in the months of April and May. Horses eat this plant with avidity: and, in some parts of Sweden, it is collected for the purpose of serving them as winter-food.

2. The Common, or Corn-horse-tail, growing in wet meadows and moist corn-fields. It is a most troublesome weed in pastures, and is seldom touched by cows, unless pressed by hunger, when it occasions an incurable diarrhoea: it is eaten with impunity by horses, but is noxious to sheep. This rough grass is employed for cleaning and polishing tin vessels. According to *Gleditsch*, this species, as well as the River-horse-tail, are of considerable service in tanning or dressing leather.

3. The Marsh-horse-tail, or Paddock-pipe, which flourishes in marshy and watery places; flowers in the month June and July. It is not so strong as the preceeding species, but is equally prejudicial to cows: farther, it is very troublesome in drains, within which it vegetates, and forms both stems and roots, several yards in length; thus the course of the water is interrupted, and the drains are totally obstructed.

4. The Rough Horse-tail, Shave-grass, Pewterwort, or Dutch Rushes, is found in marshy, watery soils, and flowers in the months of July and August. This species is wholesome for horses, by which it is eaten; but it is hurtful to cows, and disagreeable to sheep. It is chiefly employed by turners and cabinet-makers, for polishing their work; as well as by dairy-maids, for cleaning pails and other wooden utensils.

**HOUND's-BERRY**.—See *Cornel-tree*.

**HOUND's-TONGUE**.—A genus of plants consisting of eight species, two of which are natives of Britain: the principal of these is the Common Great Hound's-tongue, or Dog's-tongue, which is frequently found on road sides, and among rubbish; where it flowers in June.—It is eaten by goats, but refused by

sheep, horses, hogs, and cows.—Its scent is very disagreeable, and resembles the odour of mice.

This plant has a bitter taste, and is so powerfully narcotic, that persons who had eaten it as a culinary vegetable, were laid into a profound sleep for fourteen hours; and others died in consequence. The roots, however, where, according to *Ray*, employed by *Dr. Hulse*, who prescribed a decoction of them internally, cataplasms externally in scrophulous cases. The leaves and roots have likewise been recommended for the same purposes, and also for coughs dysenteries, &c. on account of their mucilaginous, astringent, and sedative qualities, of which we have had no experience.

HOUND's-TREE.—See *Cornel-tree*.

HOUSE-LEEK.—A genus of perennial plants, consisting of 13 species, one of which, the Common House-leek, or *Cyphel*, is a native of Britain; it grows on the roofs of houses and old walls, where it flowers in the month of July.

This plant is eaten by sheep and goats: its juice, when mixed with honey, is said to be of considerable service in aphthous cases, or the thrush of children; it also affords immediate relief, whether applied by itself, or mixed with cream, in burns and other external inflammations.

HURR-BUR.—See *Burdock*.

HURTLE-BERRIES.—See *Bilberries*.

HURT-SICKLE.—See *Corn Blue-bottle*.

HYACINTH.—Or *Hyacinthus*, a genus of perennial plants, comprising 16 species, one of which is indigenous; namely, the English Hyacinth, or Harebell Hyacinth, or Wild Hyacinth of *Dr. Smith*, it grows in woods and hedges, where it flowers in the month of May. The fresh roots of this plant are poisonous; but it appears from experiments, that they may be advantageously converted into starch.

The most admired of the exotic species is the *Orientalis*, or Eastern Hyacinth, which is cultivated to a great extent, and with success, by the florists of Holland, whence it has been lately imported. It is one of the most odoriferous flowers, and has several hundred varieties, the price of which is from three-pence to 20l. or 30l. per root!

The hyacinth is a hardy plant, and will prosper in any soil, though the more delicate varieties require to be sheltered during the severity of winter. They may be propagated either from the seed, or by planting off-sets from the roots, in autumn; in which latter case the bulbs ought to be previously cleaned and dried.

HYSSOP.—A genus of exotic plants, comprising three species, the principal of which is the Common Hyssop. It grows to the height of 18 inches; is a very hardy plant, and may be propagated either by slips or cuttings, or by seeds. The leaves



have an aromatic smell, and a warm pungent taste: they are particularly recommended in humioural asthmas, coughs, and other disorders of the breast and lungs; being supposed powerfully to promote expectoration.—According to *Ray*, these leaves are of great service when applied in cataplasms to bruises, the pain of which they speedily mitigate, and at the same time disperse every mark, or spot, from the part affected.

IVY, THE COMMON.—A native plant, growing in woods, hedges, and about old buildings: it flowers in the month of October.

This plant was first brought to Europe from Canada, and has been long cultivated in the British gardens, chiefly for the purpose of covering walls or buildings. It shoots almost 20 feet in one year, and gradually extends to the top of the highest building. It is easily propagated in autumn, by its trailing branches; and will thrive in almost any soil or situation; so that in the following October it is fit to be transplanted to those places where it is destined to remain.

The leaves of ivy possess a nauseous taste, though in Germany they are employed as a specific in the atrophy of children. Among the lower class of people in England, they are applied to issues; and the Scotch Highlanders prepare an ointment from the leaves, which is much esteemed for the cure of burns.—The berries are of a fine gold colour, and possess a slight degree of acidity: when swallowed by children or adults, they occasion vomiting, diarrhœa, and profuse sweating.—The roots of this plant are employed by leather-cutters to whet their knives.—*Bohmer* informs us, that both the leaves and branches are useful in tanning.—Apricots and peaches, when covered with ivy during the month of February, have been observed to bear abundant fruit.—Horses and sheep eat the common ivy, but it is totally refused by cows and goats.

JOHN's-WORT.—Or *Saint John's-wort*, a genus of plants comprising sixty-three species, nine of which are natives of Britain. Of these, the principal is the Common, or Perforated Saint John's-wort, growing to the height of eighteen inches, in thickets, woods, hedges and on dry banks: it flowers in the months of July and August.

This plant is eaten by goats, cows, and sheep, but is refused by horses and hogs. Its medicinal virtues are not accurately determined. The leaves, however, when given in substance, are said to destroy worms; and the semi-pellucid dots found on them, yield, on distillation, an essential oil. In Sweden, the flowers are used to impart a purple tinge to spirits; and the whole plant, when dried, and boiled in alum-water, communicates yellow or brown-red shades to yarn. The seed-bearing tops con-

tain a fine red colour, that appears on friction between the fingers, and more than any other vegetable, resembles the *gum-lac*.

**JUNIPER-TREE.**—A native shrub, comprising several species; of which the principal is the *Common Juniper-tree*: it grows in many parts of Britain, upon dry, barren commons; on hills, or in vallies, in open sandy plains, or in moist and close woods, where it generally continues a low shrub: but, if planted in a good soil, it will attain the height of 15 or 16 feet, and produce numerous branches.

The juniper-tree may be propagated by the berries, if they can be procured in a ripe state. It is remarkable, that no grass will grow beneath this shrub; though the latter is said to be destroyed by the meadow-oat.

Juniper-berries possess a strong, not unpleasant smell; and a warm, pungent, sweet taste; which on chewing, or previously well bruising them, is succeeded by a bitterish flavour. They require two years before they ripen, and yield, on expression, a rich, sweet, aromatic juice, bearing some resemblance to the taste of honey. These berries are useful carminatives; for which purposes a spirituous water, and an essential oil, are prepared from them. The Swedes eat them for breakfast, in the form of a conserve—In Germany, they are frequently used as culinary spice, and especially for imparting their flavour to *sauer-kaut*. According to *Hoffman*, a *rob* is prepared of the liquor remaining after the distillation of the oil: it is passed through a strainer, and gently exhaled to a due consistence. This he recommends as a medicine of great efficacy, in cases of impaired digestion and debility of the intestines; it is also very serviceable to aged persons, labouring under diseases of the urinary passages. The *rob* is of a balsamic sweet taste, somewhat bitter, accordingly as the seeds have been more or less bruised. One of the best forms, however, is a simple watery infusion of the berries, or the tops, with the addition of a small quantity of gin: thus, a very useful medicine is obtained for dropsical patients.—*Linnaeus* informs us, that the Laplanders are accustomed to drink such infusions as substitutes for tea and coffee.—The oil of juniper, when mixed with that of nuts, makes an excellent varnish for pictures, wood-work, and for preserving iron from rust.

The wood of the juniper-tree is of a reddish colour, very hard and durable: it is employed in marquetry and veneering; making cups, cabinets, &c. while the bark may be manufactured into ropes.—The charcoal made from this wood, affords the most durable heat, so that live embers are said to have been found in the ashes, after having been covered for 12 months.—The resin of this plant (*gum Sandarach*), when powdered and rubbed into paper, is frequently used under the name of *pounce*.—Thrushes and grouse feed on the juniper-berries, and disseminate the seed

in their dung.—The sprouts are eaten by horses, sheep, and goats.

We extract the following facts relative to its more extensive utility in Finland: published by M. ALOPÆUS, in the “*Transactions of the Economical Society of Petersburg.*”

1. The water used for brewing malt-liquors, is previously boiled with juniper-twigs; which are believed to improve both the salubrity and flavour of the beer.

2. The leaves are employed for fumigating houses, with a view to correct foul air, or expel pernicious vapours.

3. Milk-vessels are preferably made of juniper wood, which is supposed to contribute to the preservation of milk in a sweet state, and to render it more palatable.—When other woods are used for such vessels, they are, for the same purposes, washed with water in which juniper-twigs have been boiled.

4. Warm decoctions of this shrub are frequently given to cows, and sometimes to sheep; in order to enrich the quality, and increase the quantity of the milk.

Lastly, juniper-berries are roasted, ground, and prepared in the manner of coffee, for which they are frequently substituted; affording an excellent palliative in calculous, and gouty complaints.—From these berries may also be brewed a cheap, wholesome, and well-flavoured beer by the following process, which has but lately become generally known in Sweden:—Let 30lbs. of clean juniper berries be pounded in a mortar (we suppose without bruising the stones) and be put in a common mash tub, together with two buckets and a half of cold water, suffering the whole to stand twenty-four hours. When the juice of the berries is sufficiently extracted, the liquor must be drawn off, and boiled in a copper, being carefully skimmed during the ebullition. A due portion of hops is then to be boiled with a little of the wort; incorporated with the whole; and as it becomes lukewarm, the yeast ought to be added in the usual manner. When the fermentation ceases, the beer should be poured into a barrel containing a little isinglass; and carefully closed with a bung.—Such beverage is very salubrious and aromatic; but, as it ferments more tardily than common malt-liquor, it is apt to become sour: hence, M. ALOPÆUS advises only a small quantity to be brewed at a time.

JULY-FLOWER, or corruptedly called *Gilly-Flower*.—See *Clove-pink*, and *Pink*.

KIDNEY-VETCH,—an indigenous biennial plant, comprising several species, of which Lady’s-finger is the principal: it grows in meadows and pastures, in a chalky or calcareous soil; produces yellow flowers from May to August; and its seeds ripen in October.



In the cultivation of this vegetable, no particular care is necessary, farther than to keep it clean from weeds. It affords excellent pasturage for sheep. *Linnaeus* remarks that, when the kidney-vetch grows on a reddish caly soil, the blossoms present a red colour: but in white clay-land, they are uniformly white. Although these flowers were formerly celebrated as vulnerary, yet we believe they might be more usefully employed as a dyeing material, and perhaps, as a substitute for *indigo*; because, in a dry state, they acquire a *blue* colour. Country people obtain from them a fine yellow dye.—The plant is relished by cows and goats.

KING'S CLAVER.—See Common *Melilot*.

KING'S SPEAR.—See *Asphodel*.

KIPPER-NUT.—See *Earth-nut*.

KNAWELL, a genus of plants comprising three species, one of which is a native of Britain, viz. the Annual Knapweed, or German Knot-grass, which grows in sandy soils and corn fields; flowers in the months of July and August.

The Swedes and Germans introduce occasionally the steam arising from a decoction of the knawell into their mouths, with a view to cure the tooth-ach.—Its sweetish leaves are astringent. Goats and sheep eat this plant, but cows totally refuse it.

KNEE-GRASS.—See Rough *Panick-grass*.

KNEE-HOLLY, a genus of plants, consisting of several species, one of which is indigenous, namely, the Common Kneeholly, Butcher's Broom, or Prickly Pettigree: It grows in woods, thickets, and hedges: flowers in the months of May and June.

This plant is much used by butchers, for brooms to sweep their blocks. Branches of it are likewise employed by hucksters, to defend their bacon and cheese from mice; because these vermin cannot penetrate through the prickly leaves.—The root of the knee-holly is said to be aperient, and is chiefly used in diet-drinks, for removing slight obstructions of the viscera, and promoting the fluid secretions.

KNOT-BERRIES.—See *Cloud-berry*.

LADIES' BED-STRAW.—See *Cheese-rennet*, and *Goose-grass*.

LADIES'-HAIR.—See *Quaking-grass*.

LADIES'-FINGER.—See *Kidney-vetch*.

LADIES'-MANTLE,—a genus of plants, comprising four species, three of which are indigenous, and of these the principal is the common Ladies'-mantle, growing frequently in meadows and pastures: it flowers from June to September.

This plant might be easily cultivated, either by dividing the roots, or scattering the seed in autumn.—It requires a moist soil, a shady situation, and to be kept clean from weeds.

The leaves of the ladies'-mantle are mildly astringent; though at present seldom used in medicine.—According to *Gleditsch* and *Bautsch*, the whole plant may be advantageously employed in tanning.—Horses, sheep, and goats, eat this vegetable, but it is not relished by cows; and hogs totally refuse it.

LADIES'-SEAL.—See *Black Bryony*.

LADIES'-SMOCK, a genus of plants consisting of sixteen species, seven of which are indigenous; the principal of these is the Common Ladies'-smock, growing in meadows and moist pastures; it flowers in the month of May.

According to Dr. (now Sir *George*) *Baker*, the flowers of this plant may be used with great advantage in hysteric and epileptic cases, if taken twice a day in doses, of from 20 to 90 grains each. In Cornwall, the flowering tops have successfully been employed for the cure of epilepsy, for several generations.—Goats and sheep devour this herb, but cows dislike it, and neither horses nor swine will touch it.

LAMB'S-LETTUCE.—See *Corn Salad*.

LAMB'S-QUARTERS.—See *Wild Orache*.

LARCH-TREE,—one of the most valuable exotics, which was introduced into Britain from the Alps towards the end of the 17th century, and has been lately cultivated with particular attention.

The larch will grow in any soil, but it flourishes most luxuriantly on cold and gravelly lands, or such as are neither too stiff nor too dry; provided its roots can penetrate through the soil to a sufficient depth. It is propagated from seeds first put in a light earth; and at the end of two years, the young plants are usually removed to those spots where they are destined to remain. This useful tree should be transplanted immediately after shedding its leaves: during the first four years, it grows slowly, and seldom exceeds three feet in height; but in the course of twenty it will surpass both in length and girth, a fir-tree 40 years old; at the age of 24, it is, in general, from 50 to 60 feet high; and in 50 or 60 years, it often attains the height of 120.

The most proper season for felling the larch, is in the month of July; because the liquid which oozes from the tree at that time, is speedily changed into a gummy resinous matter, so that the wood is not drained so much as at other seasons, but hardens, and may thus be sooner employed.

The larch is of singular utility for various purposes, in which durability and strength are required. Hence it is peculiarly calculated for ship-masts and the building of vessels, or for strengthening the wooden frame-work of bridges; for it is capable of supporting a much greater weight than the oak itself, and almost petrifies under water. It also resists the intemperature of our

climate, and is of excellent service for gates, pales, and other works which are exposed to all the vicissitudes of the weather.

Larch timber is equally durable within doors; and houses constructed with it, have a whiteish cast for the first two or three years; after which the outside becomes black, while all the joints and crevices are firmly closed with the resin extracted from the pores of the wood by the heat of the sun; and when being hardened by the air, forms a kind of bright varnish, that has an elegant appearance.—Nor is there any wood which affords such durable pipe-staves for casks, while the flavour of the wine is at the same time preserved and improved.—Its trunk, when perforated and tapped between the months of March and September, yields the purest *Venetian turpentine*, that is of considerable use in medicine. Its large branches produce small sweetish grains, resembling sugar; and which are known under the name of *manna*, from their possessing similar purgative properties with that drug.

The larch is likewise an excellent nurse to the more tender trees; as it is furnished with several small, pliant branches abounding with leaves, which, from their flexibility, readily yield to the contiguous trees, admit rain more easily than Scotch firs, and receive no injury from inclement snowy winters; when the branches of the latter are frequently stunted, and the trees themselves frequently destroyed.

**LARK-SPUR**,—a genus of plants, consisting of 14 species, one of which only is indigenous; namely, the Wild Lark-spur, Field Lark-spur, or Lark's-heel: it grows in corn-fields, and flowers from the month of June to September.

The expressed juice of the petals of this plant imparts a green colour; and, with the addition of a little alum, will produce a good blue ink.—The seeds are acrid and poisonous.—Sheep and goats eat the lark-spur; horses do not relish it; while cows and swine totally refuse it.—Bees are remarkably attached to its flowers, which are likewise gathered by the country people of Germany, cut small, and mixed with tobacco; as they are said to improve its flavour.

**LAVENDER**,—an exotic genus of plants, comprising seven species; the principal of which is the Lavender-spike, or Common Lavender; it flowers in the month of July.

This herb may be easily propagated: in March or April, take a quantity of slips, or cuttings, from three to four inches long; having stripped off the lower leaves, plant them in a shady border, four inches apart. If occasionally watered in dry weather, they may be transplanted early in autumn; removing them, if possible, with balls of earth.—When they are intended for a crop, it will be requisite to set them in rows two or three feet separate, and at the distance of two feet from each other; but



if destined for the shrubbery, they should be planted singly, at proper distances.

Lavender is employed both for medicinal and domestic purposes. The flowers should be gathered in July, when the spikes being cut off close to the stem, in a dry day, and tied up in bundles, are much esteemed, not only for their grateful odour, when deposited in chests, or boxes, among linen; but chiefly for preventing the depredations of *moths* and other insects.—By distilling these flowers, they yield a compound spirit, which is of considerable service in palsies, vertigoes, lethargies, tremors, &c. The distilled oil possesses the power of destroying the *pediculi inguinales*, and other cutaneous vermin. If soft, spongy paper be dipped in this oil, and applied at night to the parts infested with the insects, they will, according to *Geoffrey*, be found dead in the morning.

LAVENDER-THRIFT, or *Sea-Lavender*, an indigenous perennial plant, growing on the sea-shore; in salt-marshes; and the fissures or clefts of rocks, near the sea-coast: it is in flower from July to September.

This vegetable deserves the attention of *tanners*, on account of its red, astringent root, called by the Russians *Kermek*; and from which they prepare that valuable kind of leather distinguished by its peculiar strong, though not ungrateful odour, and on the Continent termed *Justen*. *Guldenstad*t, in his *Travels through Russia*, observes, that on the coast near Azof, he met with a tan work in which the root of the Sea-Lavender was employed in dressing the hides of oxen, both for the celebrated Russia, and common sole-leather. The roots are previously dried in the sun, and finely pulverized: next, the hides are cleaned with ashes obtained from the roots of the oak, and suffered to lie a month in this preparatory lixivium; after which they are immersed into the liquor made of the pounded roots before-mentioned. He adds, that there is not the least doubt of this root proving a complete substitute for the more expensive oak-bark.

LAUREL.—See *Bay-tree*.

LEEK,—a well-known vegetable, the native place of which is at present unknown, though it has long been cultivated in Britain.

The leaves of this plant possess a flavour similar to that of onions; affording a constant dish at the tables of the Egyptians, who chop them small, and eat them with their meat. They are also in great esteem among the Welch; and their general utility as a wholesome pot-herb, renders them a valuable culinary spice.—For the proper method of cultivating the leek, see *Onion*.

LENTIL, an useful exotic vegetable of the pulse kind, that has long been cultivated in Britain.

It is propagated from seeds, which are either sown in the pro-

portion of from one bushel and a half to two bushels broad-cast, or are drilled in rows one foot and a half apart, in order that the intermediate soil may be properly cleaned with the Dutch hoe. Sometimes, however, this vegetable is put in the ground together with oats or barley, at the rate of one bushel of the latter to two bushels of the former.

The lentil is an annual plant, growing to the height of about 18 inches, and producing pale purple flowers, which are succeeded by small flat pods, containing two or three round seeds.

These are frequently used in soups, the flavour of which is thus much improved: the plant itself affords an excellent fodder for cattle.—When, however, lentils grow among oats or barley, they should be cut while in full sap; for, if well dried and preserved, they afford an enviting food, though of heating and flatulent nature.—Nor is the fruit itself more wholesome to mankind; and *Bechstein* observes, that it is hurtful, nay, sometimes fatal to horses.

There is another kind of lentil cultivated in this country, under the name of *French Lentil*, or *Tille*. It is in every respect a plant twice as large as the preceding, and is supposed to be a distinct species. It is raised from seeds, which are sown in March, in a soil that bore corn in the preceding year, and has been once ploughed. Manure is not absolutely necessary, though it will greatly increase the crop; which is said to be copious, and may be mown several times in one season.

The stalks and foliage of this kind of lentil, furnish an agreeable and wholesome food to horses, sheep, and particularly to cows: while they considerably increase the quantity, and improve the quality of their milk. Its long and numerous pods ripen late in autumn, and produce a new species of pulse, which may be dressed in the same manner as the common lentils: in a fresh state, they may also be used and, when dry, they are eagerly eaten by poultry. The dried herb, likewise, furnishes a good winter fodder for cattle; and, as this vegetable thrives on the poorest land, it deserves to be more generally cultivated.

LEOPARD'S-BANE,—a genus of plants comprising seven species; the principal of which is the only indigenous one, termed *Parlatianches*, Great Leopard's-bane, or Wolf's-bane, growing on the banks of rivers, and lawlands of Scotland: it produces yellow flowers in the month of May and June.

This plant delights in a moist soil, and a shady situation: its spreading roots multiply so rapidly, and the seeds, if carelessly scattered about the land, produce plants so abundantly, as very soon to become a most troublesome weed.

The roots of the leopard's-bane were formerly employed in medicine, as alexipharmies and purifiers of the blood; but on account of their violent operation, have been justly exploded.

LETTUCE,—a genus of plants comprising 15 species, two of which are natives of Britain : the principal of these is the *virosa*, Wild or strong-scented Lettuce, that abounds on chalky soils, and dry banks of ditches ; flowers in the months of August and September. It has a strong odour, not unlike that of opium, and is possessed of similar narcotic properties, that resides in its milky juice ; small doses of which, newly expressed from the plant, are recommended in the dropsy. It is also said to agree with the stomach, to allay thirst, and to be mildly laxative.

Several other species and varieties of the Lettuce have, at different times, been introduced into Britain, and are now cultivated for culinary purposes. The principal of these are : 1. the Common or Garden Lettuce, which is propagated from seeds, that are generally sown early in the spring, that the plant may be cut and mixed with other salads. In its more cultivated state, this kind is known by the name of Cabbage Lettuce. 2. The Silesian. 3. The Imperial. 4. The Royal Black ; and, 5, the Upright White Cos-Lettuces, which are the most valuable plants of this nature, now reared in our gardens. They are likewise raised from seed, which should be sown towards the end of February, or in the beginning of March, on a warm light soil, and in an open situation. As soon as the plants shoot forth, it will be necessary to *thin* them, that they may be fifteen inches apart in every direction, after which they will only require to be carefully weeded ; and, as the Black Cos-Lettuce grows large, it will be necessary to tie its leaves together, in order to whiten the inner part.

There are two other sorts, known under the name of *Dutch brown* and *Green Capuchin* Lettuce, which may be sown late, under walls ; being very hardy, they withstand the severity of the winter, and will be valuable when no other green salad can be procured.—*Bechstein* states a curious fact, which deserves to be recorded, namely, if the two varieties last mentioned be planted together, and suffered to bear seeds, in a rich, warm, but moist soil, the future produce will be a new and very excellent kind of this plant, forming extraordinary large heads, the leaves of which are sprinkled with deep red spots, and uncommonly tender.

*Properties* :—The various kinds of garden-lettuce are emollient, cooling, and wholesome salad-herbs ; they are easy of digestion, somewhat aperient, and supposed to possess a soporific quality : there is no doubt, that by abating heat, and relaxing the fibres, they, in many instances, contribute to procure rest. But, for this purposes, lettuces should not be eaten with oil or vinegar, as the former renders them less digestible ; but, if either or both of those condiments must be used, it will be advisable to add



sugar, which will counteract the rancid nature of the oil, though simple salt is the most proper spice for salads.

LETTUCE, the *Hair*.—See Common *Sow-Thistle*.

LILAC,—a genus of exotic plants, natives of Persia, consisting of three species, the principal of which is the Common Lilac. It has long been cultivated in our gardens, on account of its ornamental flowers; and, if properly managed, will grow to the height of 18 or 20 feet.

This shrub thrives on almost any soil, but it produces the most beautiful flowers on rich, light land, though it flourishes best on wet grounds. It is propagated by suckers, which should be separated from the parent plants in the month of October, and set in a nursery, in rows three feet asunder, each sucker being one foot distant from the other. In the second and third year, they may be removed to the spot where they are intended to remain. After this operation, no farther attention will be required, except digging about their roots once in the course of the year, and cutting off their suckers; which not only destroy the beauty of the plant, but likewise deprive it of its nourishment.

The leaves of the Common Lilac are frequented by the Spanish Fly:—the yellowish and red-streaked wood of old trees is valuable to turners and cabinet-makers; as the vessels or utensils manufactured of it, are equal to those made of olive-wood, and almost indestructible: by immersing such articles in a cold dye, consisting of aqua-fortis largely diluted with water, they acquire a fine red colour.—From the flowers of this plant may be distilled an essential oil, similar to that of roses.

LILY,—a genus of exotic plants, consisting of ten species, all of which are remarkable for the beauty of their flowers; but the two following deserve a distinguished place:

1. The WHITE LILY, which produces a beautiful flower, the fragrant odour of which is so powerful as to induce fainting, if numbers of it be kept over night in a close apartment:—an essential oil may be obtained from them in a manner similar to that described under the article *Jasmine*.

2. FIRE LILY, which also bears fine flowers of a flaming red colour, and which, by culture, sometimes become double.—The Russians and Tungusians eat the roots of this species, either roasted or boiled in milk; and Dr. Franke informs us (in his *System of Medical Police*, printed a few years since in German), that these mealy roots might, in times of scarcity, be prepared into wholesome bread.—On account of their emollient and maturating properties, they have been greatly recommended in the dropsy; but are chiefly employed in cataplasms, when boiled and bruised into a pulp with oil: in this manner they are said to form an efficacious application to recent burns.

LILY-OF-THE-VALLEY, or MAY-LILY,—an indigenous perennial plant, growing in woods, heaths, and at the foot of hills: it flourishes in the month of May.

This vegetable is eaten by sheep and goats, but refused by cows, horses, and hogs; its flowers are in a high degree fragrant; but, when dried, they acquire a narcotic scent, and if reduced to powder, excite sneezing. Both the flowers and roots have a bitter taste; and an extract, made from either, possesses similar purgative properties with aloes; the dose being from 20 to 30 grains. A beautiful green colour may be prepared from the leaves, with the addition of lime.

LILY, the WATER,—a genus of plants comprising nine species, two of which are natives of Britain; namely,

1. The Yellow Water-Lily, or Watercan; which grows in gentle rivers, pools, and ditches: blows in the months of July and August. When the small yellow flowers begin to fade, the seed returns to the water, in which element it attains to maturity, and again germinates. This aquatic vegetable is eaten by hogs; but goats do not relish its flavour, and it is totally refused by horses, cows, and sheep. The flowers possess a flavour similar to brandy; and the roots, if moistened with milk, are said by *Linnaeus*, to destroy crickets and cock-roaches.

2. White Water-Lily, Candock, or Water-socks, which grows in ponds and slow rivers; flowers in the month of July. This species is one of the most beautiful British plants, and may be propagated by transplanting its bulbous roots in the winter. It is eaten by hogs, but disliked by goats, and totally rejected by cows and horses. The roots are employed in Ireland, and the Island of Jura, for dyeing a dark brown colour; but the Egyptians eat them boiled, and convert the seeds into bread. The Swedes also, in prevailing dearth, have used the root of this plant as a substitute for corn; though it requires to be previously divested of its bitter taste, by frequent ablutions.

According to *Gleditsch*, the roots of the white and yellow lily are equally useful in tanning and currying.

LIME-GRASS,—a genus of plants comprising twelve species, three of which are natives of Britain: the principal of these is the upright Sea Lime-grass, which grows on the sea coast, and flowers in the months of July and August.—It is eaten by cows, horses, and goats, but refused by sheep;—Dr. *Withering* questions whether it may not be advantageously formed into ropes, in the same manner as the Tough Feather-grass is manufactured in Spain.—This plant is of essential service on the coast, for preventing the enroachment of the sea, in which respect it saves millions of florins to the Dutch who cultivate it with great industry.—Its mealy seeds and roots have, in

times of scarcity, been converted into bread; and the grass itself, while young, affords proper food for cattle.

**LIME-TREE**,—a genus of trees consisting of seven species, the principal of which is the Common Lime-tree, or Linden-tree, growing in woods and hedges; flowering in the month of July.—In a rich soil it attains a prodigious size, being sometimes 20 feet in circumference, but frequently hollow: there are instances of lime-trees surviving 800 years, in different parts of Germany.

The linden-tree is erroneously supposed to be a native of Britain; for, according to Mr. *Pennant*, it was imported into England previously to the year 1652. The blossoms of this tree are of a whitish colour, possess a fragrant smell, and supply the bees with the best honey. Whether fresh or dry, they easily ferment, and *Marggraf* distilled from them a very fine flavoured brandy. The wood is soft, light and smooth; close-grained, and not easily subject to be infested by the worm, if kept in dry places. It is used for making leather-cutter's boards, for carved work, and likewise for turnery-ware. The leaves may be dried, and preserved as winter fodder, being eagerly eaten by sheep and goats. Cows also relish them in the autumn, but their milk thus acquires a very unpleasant taste.—Excellent ropes are made of the inner bark on the Continent, and which do not soil the linen suspended on them for drying: from the same substance the Russians manufacture mats, shoes, and other rustic garments. Linden cordage is so remarkably strong and elastic, that in this respect it is superior to iron chains.

**LION'S-TAIL**.—See *Mother-wort*.

**LIQUORICE**,—a genus of exotic plants, comprising two species, the principal of which is the Common Liquorice. Its long, thick, creeping roots strike several feet deep in the ground; the stalk often attains the height of five feet, and the red or blue flowers appear between the mucilaginous leaves, in the month of July.

The common liquorice is cultivated in most countries of Europe, for the sake of its mucilaginous root: but that of British growth is preferable to the foreign, which is generally mouldy when it arrives; as this vegetable, unless preserved in a dry place, is remarkably liable to such corruption.—In order to extract the juice, the Italians first cut the root in pieces, then moisten and crush it in a mill; thus it is formed into a mass similar to dough, which is boiled for eight hours, and occasionally supplied with water. Next, it is twice pressed, so that all the mucilage may be completely separated: in this state it is slowly evaporated in another chaldron for twenty-four hours, or such time as is required to reduce it to a proper consistence.—



When cool, it is cut into cakes, either of a square or cylindrical form, and packed in chests with bay leaves.

The powder of liquorice, usually sold, is often adulterated with flour, and probably also with articles less wholesome; the best sort is of a brownish yellow, of a very rich sweet taste, and more grateful than that of the fresh root. As this vegetable is one of the few sweet substances tending to allay thirst, it was employed by *Galen* in dropsical cases, with a mistaken view to prevent the necessity of drinking. There is, however, no doubt of its gentle detergent qualities, which render it an excellent medicine in coughs, hoarseness, asthma, &c. for lubricating the throat, softening acrimonious humours, and affording relief to the organs of respiration. But, with this intention, it ought to be taken as a diet-drink, in considerable portions, by way of infusion; while the patient should abstain from tea, and other hot liquids, which only inudate the stomach, and aggravate the complaint.

In domestic economy, the sound roots of the liquorice may be employed as stopples for beer or wine-bottles, being more wholesome and durable than those made of cork.—*Bohmer* informs us, that sour ale or beer may be completely restored, by suspending in the cask a linen bag containing liquorice powder, with a small portion of chalk and pot-ash.

LIQUORICE-VETCH.—See *Milk-vetch*.

LIVE-FOR-EVER.—See *Cudweed*.

LIVER-WORT,—a genus of perennial plants, comprising 363 species, the greater part of which are natives of Britain:—the most remarkable of these are:

1. The Calcareous, or Black-nobbed Dyer's Liverwort, which grows on lime-stone rocks in the North of England and Wales, and is in flower from July to December. This species is so peculiar to lime-stone rocks, that wherever these are found among other soils, they may be immediately distinguished by the appearance of this plant.—When dried, pulverised, and steeped in urine, the calcareous liverwort is employed by the Welsh, and by the inhabitants of the Orkney Islands, for dyeing a brilliant scarlet colour. It should be gathered in August, then completely dried, reduced to powder, and steeped in urine for three weeks, in a close vessel.

2. The Craw-fish-eye Lichen: it grows on rocks, walls, stones, and on the trunks of trees; flowers from January to December.—This vegetable abounds on the rocks in the North of England, where it is collected, and sent to London in casks. It imparts a red colour, and is used in making the blue pigment, known under the name of *litmus*.

3. The Large Yellow-saucered Dyer's Liverwort, which

abounds in the Highlands of Scotland, and in the county of Derby : it incrusts most of the stones at Urswick-Mere, and is in flower from January to December.—In Scotland this species is gathered, cleaned, and after being steeped in urine for the space of three months, it is formed into cakes ; which, when dried, are pulverized, and employed for imparting to wool a fine scarlet colour, with the addition of alum. In England it is collected, and sold at the rate of one penny per pound, to dyers, for striking a purple dye.

4. The Dark-coloured Dyer's Liverwort, Cork, Corker, or Arcell, which grows on rocks in several parts of Britain, and flowers the whole year. It is prepared in the same manner as the preceding species :—with the addition of lime, and a little salt, it imparts a reddish-brown to woollen cloth ; which if it be afterwards dipped in the blue vat, will acquire a beautiful purple tinge.—The dark-coloured liverwort is an useful *styptic* : it was formerly reputed in inflammatory fevers, cutaneous affections, and disorders of the liver : but is now justly exploded.

5. Gold-wiry Lichen, is found on the trunks of old trees, in various parts of Britain, and flowers during the whole year. It communicates a yellow colour to yarn ; and when mixed with pulverized glass, is strewed on carcasses in Norway, to destroy the wolves which infest that country.

6. The Common Ragged Hoary Liverwort, which grows on the trunks and branches of trees, and is in bloom from January to December. This species possesses the remarkable property of imbibing and retaining odours ; on which account its leaves, when pulverized, form the basis of several perfumed powders ; they also communicate a red colour to yarn.

7. The Wrinkled Liverwort, which abounds on the surface of rocks, stones, trees, and pales ; it also flowers throughout the year. In Ireland, and the northern parts of the Isle of Man, it is employed for dyeing wool of an orange colour. If serge be previously infused, and boiled in urine, or steeped in a solution of green vitriol, and then died with this plant, it will assume a fine russet-brown tinge ; but, if it is simply immersed in a decoction of the wrinkled liverwort, the stuff will acquire a lemon shade.

8. The Spotted Liverwort, which is found on rocks, in Wales, and in the northern parts of Britain ; it flowers during the whole year. According to *Linæus*, a beautiful red colour may be prepared from this species ; and Dr. *Withering* states, that it may be converted into an excellent black pigment.

9. The Beaked Liverwort, grows sometimes upon trees, but more frequently upon rocks, near the sea coast. It is smooth, glossy, and whitish, producing flat or convex shields, very near the summits of the segments, which are acute and rigid ; and, being often reflected by the growth of the shields, appear under

their limbs like a curved beak.—This plant yealds a fine red colour; and in this respect, promises to become a substitute for the famous *Lichen Roccella* (see *Orchal*), which is imported from the Canary Islands, and sometimes sold at the price of 80l. per ton.—Both the present and the preceding species (*Lichen pustulatus*), were formerly employed instead of starch, in the manufacture of hair-powder.

10. The Green Ground-Liverwort; it grows on moist rocks, in shady, stony, and mossy places, and, like most of the preceding species, is in flower from January to December.—An infusion of this plant is made in milk, and given by the country people to children affected with the thrush.—A decoction of it, in large doses, operates powerfully both as purgative and as an emetic; it is said to be a good vernifuge.

11. The Esculent Iceland Liverwort, abounds not only in the Highlands and Lowlands of Scotland, but is also found in some of the more nothern parts of England and Wales.—The inhabitants of Iceland boil this beneficial plant in several waters, then dry, and make it into bread. They likewise prepare from it a kind of gruel, which is mixed with milk; but the first decoction is never used; as it is strongly purgative. A jelly, or thick mucilage, made of the Iceland Liverwort, is recommended by *Haller* and *Scopoli*, as an excellent domestic remedy in consumptions.—In Germany, a very durable brown dye is obtained by first boiling linen yarn, for one hour, in a solution of alum and cream of tartar; then adding to this liquor the dried Iceland Liverwort, and suffering it to boil for half an hour at the least, when the yarn is again to be immersed for a quater of an hour or longer, stirring it properly, and plunging it in a weak, cold solution of copperas or vitriol of iron.—But the Iceland Lichen also imparts a very excellent black to white woollen yarn, by previously boiling it for one hour in a liquor made of the dried plant, and an equal quantity copperas, in pure water; then removing it from this brown dye, and again boiling it for fifteen minutes in a strong decoction of log-wood: thus the wood assumes a deep black colour, which presents no other shade.

12. The Lung-wort-Liverwort, Hazel Rag, or Hazel Crotles, which abounds on the trunk of old trees, especially those of oaks, and on heaps of stones, in moist shady situations.—It has an astringent, bitter taste; and is used in Siberia as a substitute for hops, though it renders the ale narcotic, and occasions the head-ach.—This plant was formerly much esteemed in consumptive cases.—According to *Dr. Rutty*, woollen cloath dyed with the lungwort, acquires a durable orange colour.

13. The Ash-coloured Ground Liverwort, which grows upon the ground among moss, at the roots of trees in shady woods, and is frequently found on heaths, stony places, and in hedges:



it is in flower throughout the year. This species has acquired its celebrity by Dr. *Mead*'s assertion, that it is an infallible preventive of the consequences arising from the bite of a mad-dog. He directed half an ounce of the dried and powdered leaves to be mixed with two drams of pulverised black pepper, and divided into four doses : one of these was to be taken by the person bitten, every morning fasting, in half a pint of warm cow's milk, for four successive days ; after which he was to make use of the cold bath every morning for a month.—It is, however, to be regretted, that the success of this, or of any other medicine recommended for the same purpose, has but seldom proved effectual.

14. The Scarlet-bearing Liverwort, which is common on heaths, and flowers from October to April. This species assumes various appearances, according to its age, situation, and other circumstances affecting its growth. It may, however, be easily distinguished by its fungus tubercles, which are of a beautiful scarlet tinge, and grow on the top of its stalk. These excrescences, when steeped in a solution of pot-ash, are said to impart a fine and durable purple.

15. Officinal Stringy Liverwort, or Tree-moss, which grows on the branches of trees in thick woods, and is in flower from January to December.—It was formerly used as an astringent to prevent hæmorrhages, and to cure ruptures.—*Linnaeus* observes, that the Laplanders successfully apply the tree-moss to their feet, with a view to relieve the excoriation occasioned by too great exercise. Professor *Kalm*s remarks, that if this vegetable be collected from fir or birch-trees, it communicates a green colour to wool, previously boiled in alum-water.

16. The Bearded Liverwort thrives in woods, and on the branches of trees ; flowering throughout the year. It grows from half a foot to two feet in length, is of a whitish-green cast, and possesses considerable astringency. When steeped for some time in water, the whole plant acquires a red-orange colour, which is employed by the inhabitants of Pennsylvania to impart that tinge to various stuffs.

All the indigenous species of the lichens contain a considerable portion of viscid matter ; which has, by the Earl of *Dundonald*, been successfully converted into a gum, possessing all the properties of the *Senega*, at present used by calico-printers. The vegetables abound chiefly on trees, growing on poor stiff soils : they attain to maturity in three or four years ; so that a crop may be taken from the same tree every fourth year.

The liverwort is furnished with an external skin, beneath which is found a green resinous substance : the remainder is composed partly of gum, and partly of an animal fibrous matter, that is insoluble both by heat and the action of alkalies.—

In order to extract the gum from such plants, they are first scalded two or three times in boiling water; in consequence of which, the rind or skin is separated, together with the greater part of the resinous ingredient. The vegetables, thus prepared, are next put into copper vessels and boiled, in the proportion of 1 lb. to 2 gallons of water, for four or five hours; half or three quarters of an ounce of soda or pearl ashes, or half a pint of volatile alkali, being added to every pound. The boiling is continued till the liquor acquires a gummy consistence; when it is strained through a hair sieve, and the residum is expressed through hair-cloth bags, by means of presses similar to those used by tallow-melters.

The extract thus obtained, is then suffered to stand 10 or 12 hours; after which it is strained, and evaporated in lead or tin vessels, placed over stoves moderately heated by fuel, or by the steam of hot water, till it be of proper consistence for block-printing. If such gum, however, be intended for making ink, manufacturing paper, or staining or stiffening silks, crapes, gauze, &c. Lord *Dundonald* observes (in his Circular Letter addressed to the Calico-Printers of Scotland), that no *alkaline salts* must be employed for extracting the liverwort; and the boiling be continued for a longer time, and with a moderate degree of heat: thus the gummy extract will become nearly colourless; but, if volatile alkali be used, it will be necessary to substitute iron vessels for those made of copper.

Lord *D.*'s gum has been found to answer every purpose for which it was designed: as its preparation is not only cheaper, and will produce a considerable saving of money annually sent to Senegal, but will also afford employment to numerous women children, and others, in collecting, as well as in preparing, the lichens;—it promises to be a national benefit.

LOOSE-STRIFE,—the *Creeping*, an indigenous, perennial plant, growing in moist, shady meadows; and flowering in the months of June and July.—This vegetable affords a wholesome food for cattle, and especially sheep. On account of its sub-acid and mildly astringent properties, it is considered as one of the most efficacious vulnerary herbs.—*Bechstein* asserts, that the leaves and flowers of this plant, steeped in oil, furnish an excellent remedy for destroying worms and insects infesting the floors of granaries.

LOOSE-STRIFE,—the *Hyssop-leaved*, an indigenous annual plant, which grows in stagnant waters, and marshy grounds: in the month of August, it produces bright purple flowers, from which a very beautiful pigment may be extracted.

LOOSE-STRIFE,—the *Purple* or *Purple-spiked Willow-herb*, *Grass-polly*, an indigenous perennial plant, growing in marches, and on the banks of rivers; flowering in the month of June and

July.—This neglected vegetable is remarkable, as every part of it acquires a red colour, when it begins to decay, *Morand* observes, in the *Memoirs of the French Academy*, for 1769, that he found roots and braches of the purple loose strife buried under ground, between the rind of which were deposited several particles of a beautiful blue colour; and that, by chemical analysis they proved to be a true *native Prussian blue*.—*Suckow* obtained from the flowering stalks, on the addition of green vitriol, a deep black dye; and *Dambourney*, on preparing the cloth in a diluted solution of bismuth, a very fine chesnut tinge.—In tanning, likewise, the whole plant, while in blossom, has been employed with advantage; so that according to *Gleditsch*, excellent sheep-skins were fully dressed in the course of twelve days.

LOVAGE,—a genus of plants, consisting of thirteen species, two of which are natives of Britain. The principal of which is the Scottish Lovage, or Sea-parsley, growing on rocks and cliffs, near the sea-coast in Scotland, and the Western Islands; flowering in the month of July. It is relished by horses, sheep, and goats, but refused by cows. This species is much valued in the Isle of Sky, where it is eaten either as salad, or boiled as greens; its roots are reputed to be excellent carminatives, and an infusion of the leaves affords a good physic for calves.

MADDER,—a genus of plants, comprising nine species, one of which is a native of Britain, viz. the Wild or Common Dyer's Madder. It is a perennial, and flowers in the month of June and July.

The most proper soil for cultivation of Madder, in this country, is a soft sandy loam, that has been in a state of tillage for several years, and which is at least  $2\frac{1}{2}$  or 3 feet deep, being perfectly clear from all weeds.

Madder is employed in considerable quantities for dyeing a fine red colour, and likewise as a first tint for several other shades:—if wool be previously boiled in a solution of alum and tartar, and then immersed in a hot decoction of tartar only with this drug, it will acquire a very durable, though not beautiful red tinge.

The root of the Common or Wild Madder, is an excellent detergent and aperient; on which account it has been highly recommended in visceral obstructions, particularly of the uterus; in coagulations of the blood, induced either by falls or bruises; in the beginning of dropsical complaints; and especially in the rickets.—It may be given pulverized, in doses from 5 to 15 grains to children, and from half to a whole dram, three or four times a day, to adults. When taken internally, it possesses the remarkable property of tinging the urine with a deep red colour; and produces similar effects on the bones of animals, if eaten among other food.



MAIDEN-HAIR,—the COMMON, *Millwaste*, or *Spleenwort*, an indigenous perennial plant, growing on old walls, rocks, and shady, stony places; flowering from May to October.—Its leaves have a mucilaginous, sweetish, sub-astringent taste, without any peculiar odour: they are reputed to possess considerable efficacy in disorders of the breast, proceeding from viscid and acrid humours, when taken in the form of an infusion or decoction; hence they have been recommended for promoting the expectoration of tough phlegm, and removing obstructions of the viscera.

MAIDEN-HAIR,—the GREAT GOLDEN or *Goldilocks*, an indigenous perennial plant, growing in woods and moors, in wet, boggy places; flowering in the months of May and June.—The branchless stem of this moss frequently attains the length of 18 inches; and being covered with many long and soft leaves, it may be advantageously employed for besoms and brushes.—*Linnaeus* remarks, that the wandering Laplanders construct their couches of this elastic vegetable; and, according to *Steller*, the inhabitants of Kamtschatka employ these stalks as wicks in their lamps made of earthen ware.

MALLOW,—a genus of plants, consisting of 53 species, four of which are natives of Britain: the principal of the latter is the Common Mallow, or *Mauls*, growing in hedges, foot-paths, and among rubbish; flowering from June to August.—The leaves of the Common Mallow possess a mucilaginous, sweetish taste, and were formerly often used in food, with a view to prevent costiveness. At present, decoctions of this plant are sometimes prescribed in dysenteries, and urinary complaints; though it is chiefly employed in emollient cataplasms, clysters, and fomentations.—The flowers are eagerly visited by bees, which obtain from them an abundant supply of honey.

All the species of mallow, both indigenous and exotic, are beautiful plants, well calculated for ornamenting gardens, and affording grateful food to cattle; as they may be easily propagated by seed. But there are three, viz. the *Crispa*, or Curled Mallow; the *Peruviana*, or Peruvian Mallow; and the *Mauritiana*, or Mauritian Mallow; which, when macerated like hemp, afford a thread much superior for spinning, to that obtained from the latter vegetable; and the cloth made of the three species before mentioned, is said to be more beautiful than that manufactured of flax. From the curled mallow, which produces the strongest and longest fibres, excellent cordage and twine have been procured; and *M. de Lisle* fabricated a new kind of paper from different species of the mallow, which not only served for the purposes of wrighting and printing, but also appeared to be eminently useful for drawing, and for the hanging of apartments.

MALLOW, the MARSH.—See *Marsh-Mallow*.

MAPPLE-TREE,—a genus of plants, comprising twenty species, of which the following are the principal, viz.

1. The *Common-Mapple*, which is a native of Britain, grows in thickets and hedges, and flowers in the month of June:—The wood of this species is much used by turners, being far superior to that of the beech. When it abounds with knots, it is greatly esteemed by joiners, for the purpose of inlaying. On account of its lightness, mapple-wood is also frequently employed for musical instruments: being remarkably white, it was formerly converted into tables, and other articles of domestic furniture, particularly cups; which last may be turned so thin, as to transmit light. But, at present, this tree is principally planted for hedges, and for underwood; because it is of quick growth, and afford of the best excellent fuel.—According to *Dambourney*, a decoction of the common mapple, imparts to wool, prepared in a solution of bismuth, a reddish-brown colour similar to that obtained from wood.

2. See *Sycamore-tree*,

3. The *SUGAR-MAPPLE*, which is a large, beautiful exotic tree, frequently growing to the height of from 40 to 60 feet, and 2 feet diameter. Its flowers appear early in the spring, and are succeeded by long winged seeds, which sometimes ripen in England. This species is cultivated to a very considerable extent in North America, for the sake of its vinous juice, which flows, on making incisions on the tree, for several weeks in the spring, and by evaporation reduced to the consistence of a brownish saccharine substance, known the name of *Mapple-sugar*. Beside, the sap of this tree affords an excellent vinegar, and a very agreeable kind of melasses which Dr. *Rush* thinks, may be converted into a wholesome summer-beer.—It is remarkable, that the juice exuding from this tree is sweeter and richer, in proportion to the greater or less quantity of snow fallen during the winter; and that it will flow, even during the latter season, when it is wounded sufficiently deep, and on its southern aspect.—As this valuable tree grows speedily; endures the coldest climates; and (if not drained of its juice), furnishes not only good timber, but also excellent wood for turnery and cabinet-ware, which is not liable to the depredation of the worm, its culture in Britain cannot be too strongly recommended.

MARES-TAIL,—the common, an indigenous perennial plant, growing in ditches and stagnant waters; it flowers in the month of May.

This weekly astringent vegetable is eaten by goats, but refused by cows, sheep, horses, and swine.—its rough stalks are employed by cabinet-makers and turners, for polishing wood, bones, brass, &c.

MARJORAM.—a genus of perennial plants, comprising 14 species: of these, one only is an indigenous, the *Common, Wild, or Field Marjoram*, which grows in thickets and hedges; it flowers in the months of July and August.

This plant delights in a calcareous soil, and is easily propagated either by its seeds, or by slips of the roots. It is a fragrant aromatic, has a pungent, spicy taste, and is much esteemed for culinary purposes, especially for imparting a fine flavour to broths.—The dried leaves are uncommonly grateful, and are sometimes used as a substitute for tea.—An essential, but extremely acrid, oil is expressed from this herb, and which is often employed by farriers as a *caustic*.—If a little cotton wool, moistened with such oil, be introduced into the hollow of an aching tooth, it frequently tends to relieve the pain.—The whole plant, excepting the root, when boiled in water, imparts a bright and red deep brown colour to wool especially if the latter be frequently taken out of the liquor, and properly beaten. But, if linen is to be died of a purple colour, it ought to be previously steeped in alum water, then immersed for 48 hours in a decoction made of the bark of the crab-tree.—In Germany, the dried herb is occasionally suspended in cask of beer, with a view to correct its tart or acid taste.—Goats and sheep eat its leaves and stalks; but they are not relished by horses; and totally refused by cows.

MARSH-CLEAVER. See *Tréfoil Buckbean*.

MARSH-LOCKS, the *Purple, or Marsh-Conquefoil*, an indigenous perennial plant, growing in muddy and putrid marshes; flowering in the months of June or July; and producing red berries in autumn.—The whole plant may be usefully employed in tanning calf-skins.—The Irish, who dispose of milk in the streets, rub the inside of their pails with this herb; in consequence of which the milk appears to be thicker and richer.—The roots of the marsh-locks produce in dyeing an indifferent red colour.—Goats eat the plant, but it is not relished by either cows or sheep, and totally refused by horses and hogs.

MARSH-MALLOW, —or an indigenous perennial plant, growing in salt-marshes and on the banks of rivers; flowering in the month of August.

This useful plant may be easily propagated, either by parting the roots in autumn, when the stalks decay; or by sowing the seeds in the spring. It delights in a moist soil, where it will grow to a considerable size; and thrives well, when transplanted, in any soil or situation. Bees are remarkably fond of its melliferous flowers.

Every part of the Marsh-mallow, and especially the root, on boiling it, yields a copious mucilage; on account of which, it is frequently employed in emollient cataplasms, and by way of



infusion. In humid asthma, hoarseness, dysenteries, and likewise in nephritic and calculouse complaints, it is of eminent service as, by lubricating and relaxing the vessels, it procures a more easy passage to the stagnant fluids. It is with equal advantage applied externally, for softening and maturing hard tumours; and, when chewed, it is said to afford relief in difficult teething.—*Syrup of Marsh-mallows*, sold in the shops, is prepared from the roots, and chiefly used by sweetening emollient decoctions.

**MARSH-MARIGOLD**,—or *Meadow-bouts*; an indigenous perennial plant, thriving in moist meadows, and on the banks of rivers: it flowers in the months of April and May.

This hardy vegetable preserves its verdure during the winter: hence, it has been recommended by *Du Hamel*, as an excellent winter pasture for cattle.—It may be easily propagated either by parting the roots in autumn, or by sowing its seeds about the latter end of the summer: it requires a humid soil, and a shady situation. When gathered before they expand, the flowers, if preserved in vinegar with the addition of salt, may be used as a substitute for capers. The juice of the petals, boiled with a little alum, communicates to paper a yellow colour; and it may likewise be employed in the spring, for imparting a similar thing to butter.—Although *Boerhaave* informs us that cows will not touch this plant, unless impelled by hunger, when it produces a fatal inflammation; yet we believe with *Du Hamel* and *Bechstein*, the cattle may eat it with safety; as they instinctively devour its bitter leaves.—Goats and sheep also relish the Marsh-marigold; but horses and swine refuse it.

**MARSH-TREFOIL**.—See *Trefoil Buckbean*.

**MARYGOLD**,—the **TRIFID BUR**, *Trifid Double-tooth Water-hemp*, or *Hemp-agrimony*; an indigenous annual plant, growing in marshy and watery places, and flowering in the months of August and September.—*Dambourne*, and other writers inform us, that both the fresh and dried herb imparts to wool, with the addition of alum, a very bright yellow colour: the yarn of cloth, however, should be washed and dried before it is immersed in the dyeing liquor, in which it ought to be boiled for two hours; and, in order to extract more effectually the colouring particles, the plant must be cut in small pieces, put in the vessel, in alternate layers with the substances to be tinged, and properly agitated.

There is another species, namely, the *Nodding Marygold*, which is possessed of similar properties.

**MARYGOLD**—the **CORN**. See *Great White Ox-eye*.

**MASTERWORT**, the *Common*,—is an indigenous, perennial plant growing in damp meadows, and flowering in the month of June: It is cultivated in gardens, on account of its medicinal properties, and may be propagated either by sowing its seeds, or

by parting the roots in autumn,

Masterwort produces a warm and aromatic root, which has been recommended in the dropsy; as well as in debility of the stomach and bowels. An infusion of it in wine is said to have cured quartan agues, after the bark had failed.—When chewed, it produces a copious flow of saliva, excites a heating but agreeable sensation in the gums; frequently affords relief in the rheumatic tooth-ach.—*Hoffman* asserts, that the roots of this vegetable are of great efficacy in flatulencies, and the painful colics thence arising: when dried and pulverized, they have sometimes afforded relief in asthmatic cases, and disorders of the head.—Boiled in a recent state with lard, they form an ointment, that is reputed to be a considerable efficacy in removing ring worms.—According to *Bautsch*, it has also been advantageously employed in tanning.

**MASTIC**,—or *Mastich* the *Syrian Herb*, or *Marum Germander*, a native of warm climates. Its leaves, distilled with water yield a very acrid and penetrating essential oil, which resembles that obtained from scurvy-grass. And, though the plant is at present chiefly employed as a cephalic, there is reasons to believe that it possesses very powerful diuretic and antiscorbutic virtues. Hence, *Dr. Gledisch* strongly recommends an infusion of the leaves in wine properly digested, or tincture prepared in proof-spirit, in diseases arising from relaxation of the solids, or a redundancy of viscid humours, such as lethargy humid asthma, obstructions of the intestines, green sickness, swelling of the limbs, and the true scurvy. Being, however, an active medicine, the doses ought at first to be small, and but gradually increased; for instance, from one to three table-spoonfuls of vinous infusion; or an equal number of the tea-spoonfuls of the spirituous tincture should be taken, three or four times in a day.

**MATGRASS**.—See *Matweed*.

**MATHEN**.—See *Fetid Chamomile*.

**MATWEED**,—the *SEA, Helme, Sea-reed*, or *Marram*, an indigenous perennial plant, growing only on the driest sandy shores, and flowering in the month of June or July. This useful reed prevents the wind from dispersing the sand over the contiguous fields, which, by neglecting its propagation by seed, are not unfrequently rendered useless. The Dutch have availed themselves of this advantage; and, for the same reason Queen *Elizabeth* wisely prohibited the extirpation of this beneficial vegetable. It is at present cultivated on the Norfolk coast, with a view to prevent the irruption of the sea: the inhabitants of Newborough, in the Isle of Anglesea, manufacture it into mats and ropes, whence they obtain their chief support.—In Denmark, the fibrous roots of the Sea Matweed are employed for making whisk-brushes; and the Icelanders collect and dry the seeds; from which, after reducing them in powder, a palatable bread is prepared, resem-

bling in taste the meal of malt.

**MATWEED**,—the *SMALL*, *Heath-matweed* or *Mal-grass*, an indigenous perennial plant, growing on moist heaths and marshes ; flowering from June to August. It is eaten by horses and goats, but disliked by cows and sheep.

**MAULMS**.—See *Mallow*.

**MAY-LILY**,—See *Lily-of-the-valley*.

**MAY-WEED**.—See *Fetid Chamomile*.

**MEADOW-GRASS**,—an genus of plants comprising 53 species, 16 of which are natives of Britain : the principal of these are :

1. The *Reed Meadow-grass*, growing in marshes and on the banks of rivers, flowering in the months of July and August.—This species is uncommonly valuable for being propagated on the banks of rivers or brooks, where it is devoured with great avidity by horses, cows, and sheep : but, as it is apt to *blow* or distend the bowels of cattle, when eaten too largely, or when its panicles are burnt, these circumstances deserve some attention. It abounds particularly in the Isle of Ely, rising to the height of six feet, though usually mown when about four feet high : after being dried, it is bound up in shaves, then formed into *ricks*, in which it undergoes a slight degree of fermentation, to improve its sweetness for provender. In this state, it is provincially called *White-lead*, from its acquireing surface when dry : it is peculiarly useful for milk cows ; but horses do not relish it, when thus prepared—The reed meadow-grass is one of those vegetables that deserves to be more generally known and cultivated : as it likewise affords, if properly dried, an excellent substitute for straw, in thatching.

2. The *Smooth-stalked Meadow-grass*, which grows on dry banks, and even on walls : it flowers in the months of May and June. This plant thrives better in dry than in moist situations, whence it retains verdure during hot and dry seasons, longer than any other vegetable. Its roots spread along the ground almost as rapidly as the couch-grass, and is nearly as difficult to eradicate : it ought, therefore, to be introduced with caution, where the pasturage is not intended to be permanent.—Though eagerly eaten by cattle, and esteemed to be one of the best grasses for hay, its value decreases, as its quantity every year diminishes in dry soils ; and it at length produces very different crops. This diminution is occasioned by its roots *matting* together, and exhausting the land : which effects, however may be prevented by manuring the soil, and are not so perceptible on moist grounds, where the plant will flourish, though not so luxuriantly as in dry situations.

3. The *Annual Meadow-grass*, or *Suffolk-grass*, which grows in pastures, in paths, gravel-walks, and the borders of fields ; it flowers during the whole summer.—This grass is devoured with avidity by every kind of cattle ; and as it abounds in the county



of Suffolk, where the finest salt butter is prepared, Mr. *Stillington* conceives it to be the best grass for milch-cows.

4. The *Roughish Meadow-grass*; Bird-grass; Fowl-grass; or Fold-meadow-grass. It is perennial, grows in moors, moist pastures, and the sides of hedges; and flowers from June to September. This plant is reputed to be in every respect the first of British grasses; as the best meadows abound with it, and particularly the celebrated *Orcheston Meadow*, in the county of Wilts. And few grasses are more productive, or better calculated for hay or pasturage, than the rough meadow-grass, yet it requires a moist soil, and situation some-what sheltered, being liable to be injured by severe cold or excessive drought. It is much relished by every kind of cattle.

5. The *Flat-stalked*, or *Creeping Meadow-grass*: It is perennial; grows on walls, house-tops, and every dry situation, and flowers from June to August.—This species, in the opinion of Dr. *Anderson*, is the most valuable of meadow grasses. Its leaves are firm and succulent; of a dark Saxon-green colour; and grow so closely together, as to form a pile of the richest pasture-grass. Its flower-stalks continue to vegetate very luxuriantly during the summer; and even in a fading state, the leaves retain their beautiful green cast. The latter are much larger, and more abundant than those of the roughish meadow grass. Besides, it produces a fine turf in parks and sheep-walls, while it renders the flesh of deer and sheep, uncommonly tender and sweet flavoured; being a favourite food of these animals.

6. The *Marsh Meadow-grass*, which abounds in marches and overflowed lands. It grows to the height of four or five feet; is excellently calculated for laying down spongy or fenny grounds; and is reputed to be equal, if not superior, to any other vegetable for the purpose of the dairy.—In autumn, however, its leaves become somewhat prickly.

7. The *Sea-Meadow-grass*, which is frequent on the sea coast, and flowers in the months of June and July.—It is one of the principal grasses which grow in salt marshes and is eagerly eaten by cattle.

MEADOW-SAFFRON,--or *Tuberoot*, an indigenous perennial plant, being the principal of three species; growing in meadows; flowering in the months of August and September.

The flower of this hardy plant rises immediately from the root, and its large leaves appear in the succeeding spring: the former afford a beautiful variety of purple, white, red, rose-coloured yellow, &c. with single and double flowers.—This vegetable is more ornamental than useful; and, though it frequently occupies a considerable part of a meadow, it is never touched by horses.

In its medicinal properties, the Meadow-Saffron resembls those of the Squill: the root of the former has ever been considered as an

acid poison, but it is less injurious in autumn than in the spring; its seed is also deleterious, though not mortal to man or cattle.—The juice expressed from the leaves of this plant, when rubbed on the skin of animals, affords a very powerful and effectual remedy against vermin, with which they are often infested.

**MEADOW-SWEET**,—the *Common*, or *Queen-of-the-meadows*, an indigenous perennial plant, growing in moist meadows and on the banks of rivers; flowering in the months of June and July. Its stalks attain the height of four feet; and the fragrant flowers, when infused in boiling water, impart to it a very agreeable odour, which rises on distillation: hence they are often employed by wine-merchants, for improving the flavour of *made* wines. The roots are so powerfully astringent, that calf-leather has been tanned with them in a fortnight. According to *Bryant*, the Russians prepare of these roots a palatable granulated flour or *groats*; and *Olaffen* informs us, that the Icelanders dye a durable black colour, by a decoction of the whole plant.—Hogs devour the roots with avidity; goats and sheep also relish this herb, but cows and horses refuse it.

**MEALY-TREE**.—See *Guelderrose*.

**MILLET**,—a genus of plants, consisting of five species; of which the following are the principal: namely:

1. The *Common Millet*; which is a native of India, and seldom cultivated in Britain, except in gardens, for the sake of its small round seed, that affords grateful food to poultry. It may, however, be easily propagated, by sowing it in the beginning of April, upon a warm dry soil, but not too thick; because the plants, when growing, expand, and requires much room. Hence they should be kept clean from weeds, at their first, shooting up. In August, they attain to maturity; but if exposed to the depredations of birds, they will devour it as soon as it begins to ripen.

2. The *Soft Millet*; which is a native of Britain, grows from five to six feet in height, in moist shady woods; and flowers in the months of May and June.—This plant is very beautiful; and though it has no useful property to recommend it to the industrious farmer, yet it deserves to be cultivated in shady gardens, on account of its fragrant odour.—Its seeds are eaten with great avidity by linets.

Besides its utility for feeding poultry, millet is highly esteemed for making puddings, and by many preferred to rice. As an article of food, however, it is by no means equal either to blanched oats, or barley, and ought not to be eaten by persons whose organs of digestion are weak, or impaired.

**MINT**,—a genus of plants comprising 24 species, 12 being natives of Britain; of which the following are the principal:

1. The *Pulegium*: See *Pennyroyal*.

2. The *Corn-mint*: growing on moist heaths, pastures, and in sandy inundated fields; flowering from June to September.—It is eaten by horses, and goats, but disliked by sheep, and refused by hogs and cows; though the animals last mentioned devour it eagerly towards the end of the summer, when pressed by hunger, and the pastures are bare; in which case it prevents the coagulation of their milk, so that it is with the greatest difficulty converted into cheese.

3. The *Spear-mint*, which grows on the banks of the rivers, and in watery situations; flowers in the months of July and August. It is propagated by parting the roots, and as its flavour is more agreeable than that of most other species of this plant, it is generally preferred for culinary purposes.—The leaves of the *Spear-mint*, when prepared with sugar, form a delicious conserve; and the distilled waters, both spirituous and simple, are highly esteemed for their mildness and pleasant taste.—The leaves are eaten in the spring as a salad; and their juice, when boiled with sugar, is formed into lozenges.

4. The *Pepper-mint*, growing in watery places, and on the banks of rivulets; flowering in the months of August and September.—Its stem and leaves abound with minute vesicles containing a very pungent essential oil, that rises in distillation.—This species is the strongest and most aromatic of the mints, on which account it is alone used in medicine, and the liquor prepared from it, is known under the name of *Peppermint-water*.—Being an excellent stomachic, it is but too often used in cases of impaired appetite, flatulence, colics, nausea, and inclination to vomit. It has also occasionally been found of service in hysteric affections; and however harmless in itself, when considered as a simple water, this exhilarating carminative is so far a dangerous domestic medicine, as with many nervous and irritable persons, it is apt to introduce a habit of tasting the stronger spirituous liquors.

MISSELTOE, THE COMMON.—White Misseltoe, or Missel, a parasitical plant growing on Apple and Pear-trees, the Hawthorn, Service, Oak, Maple, &c; flowering in the month of May.

From the berries, as well as the bark of this plant, good bird-lime may be prepared; and, if the former be rubbed, when fully ripe, on the bark of almost any tree, they will adhere closely, and produce plants in the succeeding winter.

Fieldfares and thrushes eat the Misseltoe berries, the seeds of which pass through them unchanged, and along with their excrements adhere to the branches of trees, where they vegetate.—No art has yet induced the Misseltoe to take root in the earth.—Sheep eagerly devour this plant, which is frequently cut off the trees or them, during severe winters; nay, it is even said to preserve these animals from the rot.



Professor *Boeck*, in his *Natural History of Prussia*, (vol. iii. p. 367, Germ. edit.), informs us, that poor people have often, in times of scarcity, collected and dried the stalks and branches of the Misseltoe; then pulverized and mixed them with rye-flour; and thus obtained nourishing bread, which was by no means unwholesome.—Professor *Leonhardi*, in a similar work, observes that the Misseltoe, or bird-lime, when combined with soap-boilers' suds, affords a good substitute for soap, and is alike soluble in water and spirit of wine.

**MOSCHATEL, THE TUBEROUS.**—An indigenous perennial plant, growing in damp woods, and shady places, where it flowers in the months of April and May.—The ripe fruit of this low plant has the flavour of strawberries. The plant itself possesses the odour of musk, for which it may serve as a substitute in chests, or drawers, among clothes. Its root was formerly in repute among the vulnerary herbs.

**MOSS.**—In *Botany*, a term for a numerous family of plants, which may be called the dwarfs of the vegetable kingdom.

Among the numerous *mosses* which are subservient to economical purposes, we shall at present only mention a few of the most useful; because others are inserted in their alphabetical place.

1. *Greater Water-moss*, which grows upon rocks and roots of trees; in brooks, rivulets, slow streams, and ponds: it flowers from June to September.—According to *Linnaeus*, this species resists the action of fire; and, if mixed with mortar for lining the inside of chimnies, it renders them fire-proof; as, contrary to the nature of all other mosses, it is almost incombustible.—*Bohmer* also remarks, that a thatched roof, if covered an inch thick with the greater water-moss, will be completely secured against fire.

2. *Bryum rurale*, which grows on roofs, both thatched and tiled; walls; and trunks of trees: it is perennial, and flowers from December to April.—Thatched buildings overgrown with this moss, instead of lasting about ten years, will remain sound for a century.

3. *Grey Bog-moss*, which is also perennial, and flowers in July and August.—The species materially contributes to the production of peat or turf; so that in process of time, bogs and morasses are converted into beautiful meadows:—in Norway, it is employed for filling up the crevices of planks in wooden walls; and, though it be sometimes used for a similar purpose in tiled roofs, yet as it affords shelter to vermin, we conceive, it might more safely and advantageously be applied behind the stones or brick-work of wells, to prevent the clay or loam from being wasted by the action of the water.

4. *Yellow Powder-wort*; an annual vegetable dust generated on old pales, the cracked bark of trees, and antique walls, in all

parts of the world: it appears from September to June.—This powdery substance may, according to *Bohmer*, be employed for dyeing a very bright-yellow colour.

Moss, being very detrimental to the growth and health of fruit-trees, Mr. *Forsyth* advises it to be carefully removed in the months of February or March; after which the scraped trees must be washed with a mixture of fresh cow-dung, urine, and soap-suds.—If this operation be repeated in autumn, when the trees are destitute of leaves, it will not only prevent the production of moss, but will also destroy the eggs of numerous insects, that would otherwise be hatched; while it contributes essentially to promote vegetation.

**MOSS, THE MARSH.**—A genus of perennial plants, comprising 32 species, most of which are natives of Britain.—The following only deserves to be mentioned, namely, the Fountain Marsh Moss; it grows in low wet meadows, turf-bogs, and springs; where it flowers from May till August. This kind of moss, which may be seen at a considerable distance, serves as an excellent guide for discovering clear and cold springs; wherever it thrives, fresh water may be found, without the trouble of sinking deep wells.

**MOSS-RUSH, OR GOOSE-CORN.**—A native perennial plant, growing on heaths and barren turfy bogs; flowering in the months of June and July.—This vegetable indicates a barren soil: it is eaten by horses; but, being a very low plant, its leaves adhere so closely to the ground as to elude the stroke of the scythe.

**MOTHERWORT, THE COMMON, LION'S TAIL.**—An indigenous plant, growing in hedges, rubbish, on dunghills, and calcareous soils; flowering from June till August.

The leaves of the Motherwort possess a strong, disagreeable odour, and a bitter taste.—Goats, sheep, and horses, eat this vegetable, but cows do not relish it; and it is totally refused by hogs.—*Dambourney* dyed woollen cloth of an excellent dark olive-colour, from a decoction of this plant.

**MUGWORT.**—A genus of perennial plants, comprising 49 species, five of which are indigenous: among these, the following are the principal.

See *Wormwood*, the Sea.

2. *Mugwort*, *Common Wormwood*, or *Wormwood-bouthernwood*, growing on road-sides, rocky places, and on rubbish: it flowers in August.—This herb is extremely bitter; and, if it be infused in wort, as a substitute for hops, it tenders the ale very pernicious to health, on account of its intoxicating effects.—On distilling the leaves and flowers, they yield a considerable quantity of essential oil, which is used, both externally and internally, for destroying worms.—If the leaves be put into sour beer, they speedily correct its acidity; and, being excellent antiseptics, they

are often employed in fomentations, to resist putrefaction.—According to *Withering*, an infusion of these leaves is a good stomachic; and, with the addition of fixed alkaline salts, proves a powerful diuretic in some dropsical cases. Their ashes produce a purer alkali than most other vegetables. An infusion of the same herb, given to a suckling woman, renders her milk bitter; and, if the plant be eaten by sheep, it also imparts a bitterness to mutton.—Although turkeys are fond of it (on the authority of *Mr. Holles*), yet it is not relished by horses and goats, while it is refused by cows and swine.—If the plant be macerated in boiling water, and repeatedly applied to a bruise, by way of cataplasm, it will not only speedily remove the pain, but also prevent the swelling and discoloration of the part.—In dyeing, a decoction of the Common Wormwood produces, with the addition of alum, &c. various shades of yellow; and, if such liquor be applied to bedsteads, chests of drawers, and similar articles, it prevents the generation of vermin.—The smoke arising from the lighted bundles of this herb, expels bees from their hives, when honey is to be collected, without destroying these useful insects.

3. The *Common Mugwort*, or *Southernwood*, which grows on the borders of fields, ditch-banks, and on rubbish; it also flowers in August.—This species, possessing a more agreeable flavour, is in some countries used as a culinary aromatic: a decoction of it, is often taken by country-people, for curing intermittent fevers.—The Chinese employ the fresh plant bruised, for healing wounds: and, according to *Dr. Home*, a dram of the leaves, dried and pulverized, if taken four times a day, has effectually removed hysteric fits, after æther and asafœtida had failed of procuring relief.—*Dr. Anderson* remarks, that sheep are very fond of the Common Mugwort, devouring it with great activity, especially the roots; though according to *Linnaeus*, these animals, as well as swine, totally refuse it; and horses, cows, and goats do not relish it.

**MULBERRY-TREE.**—A genus of exotics, comprising seven species, of which only the Common Mulberry-tree, is cultivated in Britain, on account of its black fruit.

It is propagated both by layers, and by cuttings, which last are preferable; because, when judiciously selected, and properly managed, they will speedily strike root. For this purpose, the cuttings ought to be taken from shoots of the preceding year, with one joint of the two years' wood at the bottom, and to be set towards the end of March, in beds of rich light earth, which should be pressed closely round them. If they be placed beneath glasses, their growth will be remarkably promoted; but, if the young plants be exposed to the air, it will be necessary to shelter them from the severity of winter, with moss; a precaution, which at the same time renders it unnecessary to water them

\*It is a cure for epilepsy also, <sup>when</sup> boiled in water  
5/13.



frequently.—In the succeeding spring, they should be removed to the nursery, and trained to stem; the more luxuriant branches being carefully pruned, to prevent their too rapid growth; and, in the course of about four years, they may be finally transplanted to the place where they are destined to remain.

Mulberry-trees thrive best in a light, rich soil, and an open situation; for, if they stand too near houses, or other buildings, or contiguously to shady trees, their fruit seldom attains to maturity. It will, however, according to the experience of *Miller*, be of considerable advantage to defend them from the west, and south-west winds, by tress, or walls, placed at a small distance.

The fruit of this species, if eaten before it be thoroughly ripe, is very astringent; but its syrup affords an excellent gargle, for mitigating inflammations of the throat, and ulcers of the mouth. The berries, when perfectly mature, are grateful to the taste; they produce both cooling and laxative effects, while they contribute to allay thirst. Their juice is employed to impart a dark tinge to liquors and confections, which stain the fingers as well as linen of a red colour, that is very difficult to extract. Spots of this kind, however, may be removed from the hands by verjuice, the acid of sorrel, and that of lemons; but, for linen, the best method is to wash the stained part with warm water, and to dry it with the vapours of sulphur, which immediately remove the spot.

The fruit of the common mulberry-tree, when properly fermented and prepared, yields a pleasant vinous liquor, known under the name of mulberry-wine. Considerable quantities of these berries are likewise consumed in the cyder countries, particularly in Devonshire, where they are mixed with apples, &c. in making a delicious beverage called mulberry-cyder. For this purpose, the ripest and blackest mulberries are selected, and the expressed juice is added to the cyder, in such a proportion as to impart a perceptible flavour. The liquor thus requires a very pleasant taste, as well as a deep red colour, similar to that of the finest Port-wine, both of which continue undiminished by age.

The bark growing on the root of the Common Mulberry-tree, has an acrid bitter taste, and is a powerful cathartic: hence it has been successfully used as a vermifuge, particularly in cases of *tœnnia*, or of the tape-worm: the dose is half a dram of the powder, or a dram of the infusion.—The wood of the tree is yellow, tolerably hard, and may be applied to a variety of uses in turnery and carving. It is, however, necessary to steep it in water before it is worked; in order to remove the tough and fibrous bark, which is capable of being converted into strong cordage, ropes, and brown paper.

MULLEIN.—A genus of plants, comprising 17 species, five of which are indigenous: the principal of these are:

1. The *Great White Mullein*, *High Taper*, *Cow's-Lungwort*, or *Ladies' Ear-glove*; growing on chalky and gravelly soils, and on dry ditch-banks; flowering in the month of July.—*Hochheimer* informs us that the roots, stalks, and flowers of this plant, after being properly cleaned of the adhering earth, and other impurities, have long been used in German granaries, where bundles of it are placed in every corner, and on the grain itself, in order to prevent the depredations of mice. It affords so complete a security from these vermin, even in barns, that they suddenly disappear, and shun the place for several years after this vegetable has been deposited.—According to *BECHSTEIN*, the root of the Great Mullein, reduced to powder, and mixed with malt-meal, speedily fattens capons and chickens.—The herb, in a dry and pulverized state, corrodes the fungous flesh of ulcers; and, if applied while fresh, heals the wounds in the foot of a horse, occasioned by improper shoring.—The flower of this, and the following species of the Mullein, impart a delicate, though not durable, yellow-colour, to wool and cotton; but on the addition of blue, these stuffs acquire a blue shade of incomparable lustre.—The woody stalks covered with pitch, make excellent flambeaus.—The seeds, when thrown into water inhabited by fish, produce an intoxicating effect, so that these creatures suffer themselves to be caught by the hand.—In Norway, the farmers give the herb medicinally to their cows, when threatened with consumption; and employ its downy fibres as a substitute for tinder.—Neither cows, goats, sheep, horses, nor swine, will eat this vegetable.

2. The *Dark or Black Mullein*, which grows in hedges, and on road-sides; is perennial: and flowers from July to September. This plant is justly admired for its beauty, the stem is covered with hairs elegantly branched, and has yellow blossoms tipped with purple:—Bees visit its flowers, which to them are exceedingly grateful.—Swine eat the plant; but it is neither relished by sheep, nor touched by cows, horses, or goats.

**MUSHROOM.**—A genus of plants, comprising numerous species, of which more than 300 are natives of Britain; among these, the following deserve to be specified:

1. The *Semiglobular Mushroom*, the gills or under part of which are fixed, and when quite young, of a whitish colour: the edges soon become entirely grey or mottled; and, when old, acquire a chocolate tinge. The stem is hollow, growing two or three inches high, and about the size of a crow's-quill. This species is found in great abundance on grass-plats, and on pastures, chiefly between the months of July and October; when it ought to be carefully avoided, being one of the poisonous fungi, the inadvertent eating of which has frequently proved fatal.

2. The *Musky*, or rather *Fly-killing*, *Reddish Mushroom*, has a large head, which is nearly flat, being generally either white,

reddish, or of a crimson hue, and covered with raised, compact, angular warts, that are sometimes thin, ragged, and flat. Its stem is solid, but the pith, or internal substance, shrivels as it becomes old, leaving irregular cavities : it grows in pastures from three to five inches in height, and is from three quarters to an inch and a half, in diameter. Among fir-trees, its head is sometimes twelve inches broad, and the stem from four to six inches broad, and the stem from four to six inches high.—This species is also poisonous ; and, if mixed with milk, is said to destroy flies : the expressed juice from this plant, when rubbed on walls and bedsteads, has been employed to expel bugs.—*Gesenius*, a medical author of great reputation, observes, that the celebrated nostrum sold at Frankfort, in Germany, under the name of *Ragolo's Anti-epileptic powders*, is supposed to consist of the Reddish Mushroom mixed with distilled oil, and pulverized valerian : this remedy is considered, on the Continent, as the only safe and certain specific for the cure of that dreadful malady.

3. The Long-stalked Mushroom, which has a hollow, white, viscid, tender stem, that grows to the height of four inches ; and is, in general, not thicker than a crow's-quill. It is found in the month of September, in wood-lands and pastures ; is highly deleterious ; and, if improvidently eaten, causes great swelling, sickness, looseness, and other fatal symptoms.

These are the principal poisonous species growing in this country ; but there are doubtless many others, equally pernicious, though not generally known.—On the other hand, the harmless and esculent mushrooms, are chiefly the following :

4. The Champignon, or Common Mushroom, the stem of which is solid and white, usually 3-4ths of an inch high, and of the thickness of a swallow's quill. Its gills, when first expanded, are of a bright-red colour, which gradually acquires a darker shade, till they become of a deep-brown cast. This plant at first represents a small globular figure, not unlike a hazelnut ; in which state it is free from worms, and eatable ; as the skin, in which it is enveloped, may then be easily separated from its white, juicy flesh : by this circumstance, it will be readily distinguished from a similar plant, the *agaricus vernus*, which is said to be poisonous.—The common mushroom is found in woods, old pastures, and at the side of roads, where it attains to perfection in the month of September.

5. The Meadow Mushroom (by some also called champignon) is very frequent on heaths, and dry pastures, being generally found in circular clusters. The cup is of a pale brown, nearly flat, and from one to three inches in diameter. Its stem is very tough, solid, and white ; grows generally to the height of an inch and a half, and as thick as a crow's quill.—This species is also eatable in September : it possesses but little smell, while raw,



and is somewhat dry ; yet, when broiled or stewed, it imparts a pleasant flavour.

6. The Cantarelle Mushroom, is wholly of a yellow cast, similar to that of the yolk of an egg. Its stem is solid, tapering downwards, being from one to two inches high, and from 1-4th to 3-4ths of an inch in diameter. It is found in woods and dry pastures, from July to September. This plant when boiled with salt and pepper, possesses the flavour of a roasted cockle : it is esteemed, together with the preceding species, as a great delicacy.

7. The Orange-coloured Mushroom, grows from one to two inches high : its stem is from 1-4th to 5-8ths of an inch in diameter, and is crowned with a flat cap, from one one-half to three inches broad, and of a rich reddish-brown colour ; but its flesh is of a pale orange cast.—In its sensible properties, this species is similar to the preceding. It is in season in the month of September, and is found in dry and elevated woods. —The Italians, especially at Genoa, preserve it in olive-oil, and esteem it as great a delicacy as the celebrated *boletus* of the Romans. There are, however, two other varieties greatly resembling the orange-coloured eatable mushroom, but which are in a high degree poisonous ; especially the *torminosus* (*piperatus* of WITHERING,) which grows on the roots of birch-trees, for instance, at Haugh-wood near Woolhope, Herefordshire ; and the *necator*, which is of a dirty yellowish cast, appears to be composed of woolly fibres filled with a glutinous dew ; and thrives in the same place, as well as in the park at Edgbaston, under large Spanish chesnut-trees.

8. The Brown Mushroom, has a convex, but flatted, clothly cap ; often with a central rise, in colour resembling that of a chesnut, or newly tanned leather. Its long stem is yellowish and naked, and the gills tawny red. This plant is readily distinguished by its cinnamon colour : in the months of September and October, it abounds in woods, especially in the plantations at Tettenhall, Staffordshire, and at Pendarvis, in Cornwall : it emits an agreeable odour, and, when boiled, possesses a fine flavour.

9. The violaceous, or Violet-coloured Mushroom, has numerous purple gills, eight in a set : the cap being of a purple or brown cast, convex, and the edge turned down ; the stem is also purple and cylindrical, from 1-4th to one inch in diameter, and growing from one to four inches in height.—This species remarkably varies, both in its size and tints. When full grown, the cap changes its lilac colour to a russet hue ; but the gills continue nearly in the same state ; hence, according to Major *Velley*, the latter affords a more accurate criterion, with respect to colour, than any other part of mushrooms in general.—The violet-coloured mushroom is in perfection from October to December, and is frequently found at Edgbaston and Barr Plantations, in the woods near Bath, and at Powick, near Worcester.—When

thoroughly boiled and seasoned, it is asserted to be as palatable as an oyster.

We have now enumerated the principal species of mushrooms that are poisonous, as well as those which may be safely eaten; but, as their harmless, or noxious properties in a great measure depend on the nature and situation of the soil producing them, it will always be necessary to attend to this circumstance, before they are gathered. There is no doubt but that the gills inhale the stagnant or superfluous vapours from the ground; hence, they speedily putrefy, and become the pray of worms, flies, and other insects.

Considered as an article of food, mushrooms are by no means wholesome or nourishing: being tough, and greatly resembling soft leather, they are almost indigestible, and ought not to be eaten by persons of weak or inactive stomachs. Besides, many species of this numerous genus of vegetables are extremely deleterious, and cannot be accurately distinguished from such as are harmless and esculent; it would not, therefore, be attended with any loss, excepting to the epicure, if mushrooms were totally banished from our tables. But, if they must be dressed, it will be advisable to employ a large portion of vinegar, or other vegetable acids, to counteract their acrimonious and narcotic nature. —In order to ascertain, with greater certainty, whether all the plants of a collection which is destined to undergo the culinary process, be of an inoffensive nature, it will be proper to put a peeled onion in the vessel in which they are to be cooked; and, if this root acquire a blueish or dark line, we may conclude that there doubtless are poisonous mushrooms among them. Should, however, any noxious species have been inadvertently eaten, it will be requisite to take a dose of ipecacuanha, or of the antimonial emetics, in order to eject the poison as speedily as possible; or, if the accident be discovered only after some hours have elapsed, copious draughts of vinegar and water, or oil and vinegar, will then form the most efficacious antidotes.

**MUSTARD.**—A genus of plants, comprising nineteen species: three of which are natives of Britain: namely.

1. See *Charlock*.

2. The *White Mustard*, which grows in corn-fields, and on road-sides; it flowers in the month of August.—This species, when cultivated, thrives best in a soil that is naturally heavy, but which has been reduced to a fine mould, by tillage: it is propagated by sowing one bushel of the seed per acre, in the month of March; it should be frequently hoed; and, when the plants arrive at a proper size for transplantation, they may be set out, ten inches apart.—Mustard may be sown on the same land, for three successive years; and it always leaves the soil in sufficient tilth for the reception of any other crop. Its leaves afford a grate-

ful food to sheep, and other cattle : the seed yields from every cwt. 33 or 36lbs. of a sweet, mild oil.—Bees are remarkably attached to the flowers.—This plant is likewise raised by gardeners in the winter, and early in the spring, with a view to supply the table with salad.

3. The *Common Mustard*, growing in corn-fields, on ditch-banks, and road-sides : flowering in the month of June.—The sauce, called mustard, and in daily use at our tables, is prepared from the seeds of this species, obtained by culture, and reduced to powder. They likewise afford a considerable quantity of expressed oil, which partakes but little of the acrimony of this plant.—When unbruised, they impart a very weak flavour to boiling water ; but, in a pulverized state, they coagulate milk, and strongly impregnate both fluids.—If a watery infusion be taken in a considerable quantity, it operates as an emetic ; but, in the proportion of a table-spoonful or two, it is a gentle laxative ; in this form, it has proved of service in cases of asthma, chronic rheumatism, and palsy.—Cataplasms, prepared with crumb of bread, vinegar, and pulverized mustard-seed, are excellent stimulants, when applied to benumbed or paralytic limbs ; to parts affected with fixed rheumatic pains, and to the soles of the feet. in fevers that require such treatment.—In short, mustard acts powerfully upon the nervous system, without exciting a high degree of heat : by its acrimony and pungency, it stimulates the solids, and attenuates viscid juices ; so that it is deservedly recommended for exciting appetite, assisting digestion, and promoting the fluid secretions, being greatly preferable to the generality of acrid plants of the antiscorbutic class.

MUSTARD, THE HEDGE.—Or a genus of plants, comprising ten species, four of which are natives of Britain.

1. The *Common Hedge-Mustard* ; *Worm-seed* ; *Bank-chesses* ; or *Scrambling-rocket* ; it grows under walls and hedges, on road-sides, and among rubbish ; where it flowers in the months of May and June.—This species possesses a warm and acrid flavour ; and, when cultivated, is used as an early pot-herb. Its seeds, taken internally, promote expectoration, the discharge of urine, and other fluid secretions. The juice has been used with unparalleled success in the ulcers of the throat, and for removing hoarseness, occasioned by loud speaking.—Sheep and goats relish this species ; but cows, horses, and swine refuse it.

2. The *Wintercresses* ; *Winter-rocket* ; or *Rocket-wormseed* ; which grows on walls, watery places, on banks of running streams, and is sometimes found in cultivated fields : it flowers from May to October.—In Sweden, the common people use the leaves of this herb in early salads in the spring, and late in the autumn : they also boil them as kale.—It is sown in Britain, to obtain spring-salad, and eaten under the name of French Cress.—Cows devour



this plant ; but horses and swine refuse it ; and it is disliked by goats and sheep.

The *Garlic Hedge-mustard*, *Jack-by-the hedge*, *Sauce-alone*, or *Garlic Worm-seed*, thriving on ditch-banks, in the hedges, and shady places ; it flowers in the month of May.—When growing in farm-yards, poultry are induced to eat this herb, which imparts to their flesh an intolerable rank taste. The Prussians eat the leaves, in the spring, with salted meat ; and they are equally useful with lettuce, and the colder salads.—In Wales, it is frequently used as a frying herb.—The seeds excite sneezing.—*Bautsch* employed this herb with advantage in the process of tanning.—Cows and goats eat the plant ; but horses, sheep, and swine refuse it.

4. The *Treacle Hedge-Mustard*, or *Treacle Wormseed*, thrives in corn-fields, and on the banks of rivers ; it flowers in the month of July.—The seeds of this species are, according to Dr. *Withering*, successfully used by the country people, for destroying worms.—The plant is eaten by horses, cows, goats, sheep, and swine.

MYRTLE, or MYRTUS.—A genus of exotic trees, comprising forty-two species ; of which the Common Myrtle-tree, only is cultivated in Britain. There are several varieties, known under the names of Broad-leaved Roman, Dutch, and Jew's Myrtle ; orange-leaved Spanish Myrtle ; the Thyme-leaved, Rosemary-leaved, Box-leaved, and Upright Italian Myrtles, &c.

All these varieties are beautiful ever-greens ; which, though requiring the shelter of a green-house in the more northern parts of Britain, during the winter, vegetate most luxuriantly in the county of Cornwall, and on the southern coast, in the open air, without being sheltered from the severity of the winter.

The Common Myrtle is easily propagated by cuttings, which may be set in beds of a rich, but light soil, beneath glasses, or in a green-house, where they thrive with uncommon rapidity.—In the Island of Minorca, the young tops are employed for tanning ; and the berries are eaten by the inhabitants.

In Britain, however, this species is cultivated chiefly for ornament ; though it is likewise of service as a medicine. A distilled water is obtained from its leaves ; which, being both detersive and astringent, is sometimes used in gargles, or as a cosmetic for fixing the teeth, when loosened by the scurvey. Its berries are distilled ; and the oil they yield, is reputed to be excellent for thickening the hair ; on which account it is frequently used as an ingredient in pomatums, and other cosmetics. Lastly, a decoction of the flowers and leaves is said to be of great service in fomentations.

MYRTLE THE DUTCH. See *Gale the Sweet*.

NAIL-WORT. See *Whillow-grass*, the Common.

NEEDLE, THE COMMON SHEPHERD'S VENUS-COMB, CRAKE-NEEDLE, OR NEEDLE-CHERVIL.—An indigenous plant, growing in corn-fields, and flowering in the months of June and July.—This weed frequently infests corn-fields, and may be eaten as greens, being a wholesome vegetable.—When bruised with marsh-mallows, these two herbs are said to afford an excellent application to fresh wounds, especially with a view to promote the extraction of splinters.

NEEDLE-FURZE, PETTY-WHIN, OR NEEDLE GREEN-WEED.—An indigenous plant, growing on heaths, and moist spongy ground: it flowers in the months of May and June.—*Dambourney* made experiments with the branches, as well as the leaves and flowers of this plant, which produced a dye of a fine citron colour: the prepared wool acquired in the decoction a very pure yellow tint.

NETTLE,—A genus of plants, comprising 57 species, three of which are natives of Britain; namely

1. The *Lesser Stinging Nettle*, which is frequent on rubbish and cultivated lands; it flowers from July to September.—The leaves of this species, according to *Linnaeus*, are gathered and cut to pieces, in order to be mixed with food of young turkies:—the whole plant is refused by every kind of cattle and ought therefore to be carefully extirpated from pastures.

2. The *Common Nettle*, grows on ditch-banks, and among rubbish; it flowers in the months of July. This species has a square, firm stem, three or four feet high, with long-pointed, serrated leaves, that are finished with stings, having at their base small vesicle full of a corrosive liquor; and which, on being touched, excite a blister, accompanied with a burning and painful sensation.

The Common Nettle, though generally considered as a noxious weed, is of extensive utility; its young tops may be boiled during the spring, and eaten as a substitute for greens; being not only nourishing, but mildly aperient. In the Western Islands of Scotland, a rennet is prepared, by adding a quart of salt to three pints of a strong decoction of nettles; a tablepoonful of which is said to be sufficient to coagulate a bowl of milk.—The leaves are employed for feeding poultry: and especially in the winter, when boiled, they promote the laying of eggs:—in a fresh state, they are refused by horses sheep, goats, cows, and hogs; though asses devour them eagerly. When dry, they are eaten by cows, for which they are an excellent food, increasing the quantity, and improving the quality, of their milk;—According to *M. Van Geuns*, such fodder is an effectual preservative against the contagious distemper affecting horned cattle.

The roots of the Common Nettle, when boiled, communicate a yellow tinge to yarn.—From the rind, as well as the woody

substance of the stalk, Dr. *Schaeffer*, has produced a very good white writing paper, that manufactured by M. de *Villette*, in France, was of a dark-green colour.—The seeds, on expression, afford an useful lamp-oil.

In a medicinal view, the whole plant, and particularly the root, is esteemed to be diuretic ; and has therefore, been recommended in the jaundice and in nephritic complaints.—A leaf, if placed on the tongue, and pressed against the roof of the mouth, is said to be efficacious in bleeding at the nose ; and instances have occurred, in which paralytic limbs have been recovered by stinging them with nettles. If credit be due to some authors, the expressed juice of this plant is a valuable remedy to the asthmatic and consumptive.

Some interesting experiments have lately been made by M. *Zannetini*, in Italy ; from which it appears, that the flowers and seeds of the Common Nettle may, with efficacy, be substituted for the Peruvian bark, in all febrile affections, especially in tertian and quartan agues. This native vegetable operates more speedily than the foreign bark ; and, in large doses induces a lethargic sleep : the portion to be given, ought never to exceed one dram, and should be administered in wine, two or three times in the course of 24 hours.—The same cautions, that are necessary in the use of the Peruvian bark, are likewise to be observed in taking the seeds and flowers of the nettle. Lastly, M. *Zannetini* recommends a slight infusion of the latter, in wine, as an excellent preservative for those who reside in marshy and unwholesome situations.

3. The *Roman Nettle*, growing among rubbish, and on old walls. It is found chiefly in the vicinity of Yarmouth, and on the eastern coast of England ; it flowers in the month of August.

Both the last mentioned species possess similar properties ; and, as the Common Nettle, in particular, acquires the height of six feet, when sown in September or October, on an indifferent soil, *Funke* strongly recommends its culture ; nay, he maintains, that after the second year of its growth, it thrives rapidly, reproduces itself annually, and may be mown two or three times every year. In this respect, it promises to become an excellent fodder for cattle.

NIGHTSHADE.—A genus of plants, comprising 66 species ; of which only two are natives of Britain ; namely,

1. The *Bitter-sweet*, or *Woody-Nightshade*, growing in moist brakes, hedges, and on the sides of cold brooks and ditches, where it flowers in the months of June and July. It endures ten years in the same soil, and attains, in the shade, the height of seven feet ; but, if there be no shrubs in their vicinity, the shoots creep along the ground, and frequently strike new roots. On account of their depth, the plant is uncommonly useful towards



consolidating dams and banks of rivers.---*Boerhave* informs us, that the bitter-sweet is far superior to sarsaparilla ;---and, according to *Linnaeus*, an infusion of the young twigs is eminently serviceable in acute rheumatisms, inflammations, fevers, &c. It has also been found very efficacious in cases of asthma, jaundice, and of the scurvy ; for which purposes, *Dr. Hallenberg* directs a pint of boiling water to be poured upon two drams of the stalks, previously sliced and dried ; after standing half an hour, the whole must be boiled for about fifteen minutes. The dose is two tea-cupfuls, or more, in the morning and evening. The stalks may be gathered early in the spring, or late in autumn ;---in smell the root of this vegetable resembles that of the potatoe.---Its beautiful red berries have a disagreeable taste, and possess deleterious properties.---Sheep and goats eat the *dulcamara*, but horses, cows, and swine refuse it.

2. The *Common Nightshade*, or *Garden Nightshade*, which grows among rubbish, on dunghills, and in kitchen gardens : it flowers from June to October.---Though generally considered as a poisonous weed, the *Dalmatians* fry it in butter, and eat this dish with a view to procure a considerable sleep ; an effect which the writer of these pages had occasion to witness.---From one to three grains of the leaves, infused in boiling water, and taken at bedtime, induce a copious perspiration, increase the secretion of urine, and generally operate as a laxative on the following day. Hence this simple preparation, if judiciously administered, may prove of great service in several affections ; but its influence on the nerves is too precarious to admit of its use, without professional advice.---The leaves, externally applied, abate inflammation and assuage pain ; the flowers possess the odour of musk.---The whole plant is refused by every kind of cattle.

NIGHTSHADE, THE DEADLY, DWAY-BERRIES, OR DEADLY DWALE.---An indigenous plant, growing in hedges, among lime-stone and rubbish ; it flowers in the month of June or July.---The whole of this plant is poisonous ; and children, allured by the beautiful appearance of its berries, have too often experienced their fatal effects.---The most proper antidotes, in such accidents, are strong emetics, large draughts of oil and vinegar, purgatives, blisters applied to the neck ; and, after the poison has been ejected from the stomach, the tincture of castor in small doses of 10 or 15 drops, should be diluted in a spoonful of water, and taken every two or three hours.---It is asserted, that tumours of the breasts, even of the cancerous kind, have been resolved by a local application of the fresh leaves. A poultice prepared of the roots, boiled in milk, and applied to hard ill-conditioned ulcers, has sometimes effected a cure.---Although the internal use of this medicine and its great efficacy in the most obstinate diseases, such as hydrophobia, epilepsy, melancholy, madness, and the

distemper of cattle, is attested by many eminent continental writers, yet we do not advise our readers to venture upon a remedy so powerful and dangerous in its effects.—The juice of the berries, when ripe, imparts to paper a beautiful and durable purple.—Sheep, rabbits, and hogs, eat the leaves of the Deadly Nightshade without the least injury; nay, experience has evinced, that the last mentioned animals have, by the use of this herb alone, been effectually cured of the inflammatory distemper, to which they are subject in dry seasons.

**NIPPLE-WORT.**—A genus of plants, comprising five species; one of which is indigenous, namely, the Common Nipple-wort, or Dock Cresses. It grows in hedges, shady places, and on rubbish; where it flowers in the months of June and July.—The young and tender leaves of this vegetable have the flavour of radishes, and may be eaten raw, as salad. Though possessing a bitter taste, they are a wholesome vegetable; and, in some parts of England, the country people boil them as a substitute for greens.

**NONSUCH.** See *Trefoil Medic.*

**NUTMEG-TREE.**—An exotic plant growing in India; resembling in size and growth the common cherry-tree; and bearing fruit throughout the year.

With respect to their effects on the human body, nutmegs are strongly aromatic, stomachic, and astringent: hence this drug has often been used for diarrœas and dysenteries, in doses from 10 to 20 grains in powder, or in larger quantities, when infused in Port-wine. In violent head-achs, arising from a debilitated stomach, small doses of this medicine have frequently been found of real service; but, if injudiciously employed, it is apt to affect the head, not unlike opium and other powerful narcotics.

**OAK.**—A genus of plants, consisting of 29 species, two of which, according to Dr. *Withering*, are indigenous. The principal of these is the Common Oak, found in various parts of Britain, where it flowers in the month of April.

The oak thrives better in hilly than in boggy ground, but flourishes most luxuriantly on rich black soils, or in strong moist loams; and, while it is young, in large plantations. It is propagated generally by sowing acorns in the proportion of from four to six bushels per acre, together with some white-thorn berries, and seeds of furze or whins; both to shelter the young plants from the severity of the cold winds, and also to protect them from being devoured by hares, rabbits, &c. As they advance in size, the stronger saplings should be selected to stand, while the more weakly are occasionally cut down; because the roots of the oak strike deeply into the ground, and the tree will not always grow with equal energy, if it be removed from its primitive soil. Nevertheless, very young oaks may be transplanted two, and even

three times, provided the tap or principal root be cut off at every removal; though such trees will be neither so full at heart, compact, and strong, nor so lasting as those which are suffered to stand on the spot where the seed was originally deposited.

This tree is remarkable for the slowness of its growth, its great bulk, and longevity. *Dr. Darwin* mentions the Swilcar Oak, a very large tree growing in Needwood forest, which measures thirteen yards in circumference at its base, eleven yards round, at the height of four feet from the earth, and which is believed to be six hundred years old.

The oak is one of the most valuable and majestic trees: its leaves are eaten by horses, cows, goats, and sheep;—deer and swine fatten on the acorns. Its bark, when stripped off, is usefully employed for tanning leather, and afterwards for hot-beds and fuel. It should not, however, exceed the age of 40 or 50 years, as after that time it becomes corky, and does not answer the purpose of the tanner.

The saw-dust, and even the leaves, though inferior to the bark, have been found useful in tanning. It appears, from numerous experiments made by the *Rev. Mr. Swayne*, of Pucklechurch, near Bristol, that half a peck of oak-leaves contains nearly as much astringent matter as one pound of bark.—Farther, the leaves make excellent hot-beds, and the saw-dust is the principal indigenous vegetable used in this country, for tinging fustians of various brown colours.

The galls, or excrescences, produced on the leaves, are employed for dying, and various other purposes.—The balls, or apples, growing on this tree, are sometimes substituted for the galls, in dyeing black colours, with the addition of copperas; but these shades, though more beautiful, are by no means of equal durability to those obtained from the former.—Lastly, the juice, expressed from oak-apples, when mixed with vitriol and gum arabic, will make an excellent black ink.

With respect to the medicinal properties of the oak, its bark is a powerful astringent, whence it has often been used with advantage in hæmorrhages, alvine fluxes, and other immoderate secretions.

Our limits will not permit us to enter into an analysis of *Mr. White's* Memoir; we shall, therefore, only observe that the species now recommended, will thrive much faster than the common Oak in a similar situation; and that, as it carries up the thickness of its butts much higher, they contain five or six times the quantity of wood, found in the English species.—The Wainscot Oak has hitherto been employed only in making posts, pales, &c.; but it appears from *Mr. W.'s* observations, that it promises to be equally useful as the British trees, for every purpose of ship-building or of carpentry.



OAT.---A genus of plants, comprising 33 species, of which the following are the principal :

The *Common Oat*, thrives on almost any soil ; and, being extremely productive on land newly broken up, it is eminently adapted to cold mountains, or marshy ground. It is divided into three varieties, namely :

1. The *White Oats*, which are the most valuable, and require a soil somewhat drier than that for the other species : this variety is chiefly cultivated in the southern counties of Britain.

2. The *Black Oats*, which are principally raised in the northern parts of this island :—for feeding cattle, they are of equal quality to the white oats ; though not affording so sweet a meal for culinary purposes, as the latter.

3. The *Brown, Red Oat*, produces good meal ; ripens somewhat earlier than either of the two preceding varieties, and does not shed its seed. It is chiefly cultivated in the north-western parts of England, for the feeding of cattle.

The last-mentioned species is raised on account of its farinaceous properties. The grain is given to horses, for which it affords a very strengthening food ; and, before barley came into general cultivation, it was converted into malt.

The meal is, in North Britain, made into cakes, biscuits, &c. ; or it is boiled into a kind of pottage. Lastly, its soft straw is usefully employed in feeding cattle, when mixed with potatoes ; and likewise for packing glass and earthen-ware.

Beside the three varieties into which the common oat is divided, there are two others, which have originated from them, namely :

1. The *Peebles-oat*, is a variety of the red-oat, and which was first cultivated in the Scotch county of that name. It is peculiarly calculated for mountainous districts, as it not only ripens early, but also withstands the severity of the wind, and is not easily shaken. Its grains, though smaller than those of any other oat, have a very thin hull, and yield an unusual proportion of fine wholesome meal.

2. The *Angus-oat*, which has in a similar manner been denominated from the county of Angus, in Scotland ; and is a variety of the white-oat, but produces a better-boiled grain, together with a greater quantity of straw ; and is thus eminently adapted to poor, dry soils. It attains to maturity somewhat later in the season than its original common white kind.

When deprived of their husk, and formed into groats, oats are converted into an excellent dish for the infirm and deceased. When ground into meal, and boiled in water, they afford a thick and nourishing mucilage. which, with the addition of a few currants, is very wholesome, and produces a mildly laxative effect.

ONION, THE COMMON.—An exotic plant, probably originating from Asia.

There are several varieties of the common onion, the principal of which are known by the names of Strasburg, Spanish, and Egyptian. They are propagated by seed, which ought to be sown towards the end of February, or early in March, during dry weather.

Should the weather continue dry, the operations before stated, will be sufficient, till the onions are ready to be pulled; but, if the season prove damp, and weeds vegetate luxuriantly, they must be removed by the hand; because, after the onions have begun to bulb, it would be improper to stir them with a hoe.—Towards the middle or latter end of August, they generally cease to grow; a circumstance which may be ascertained by the shrinking of their blades: it will, therefore, now be necessary to draw them out of the earth, to cut off the tops of the blades, and to dry them, either in a warm place, or by exposing the bulbs to the sun; and turning them every second day, lest they should bud, as often happens in damp weather.—This mode of cultivation is applicable to LEEKS, on the properties of which we have already treated, in their alphabetical order.

Beside the varieties above-mentioned, there is another, denominated *Welch Onions*, which are cultivated only for spring salad; as they form no bulbs.—These are sown towards the end of July; and in the course of a fortnight appear above the ground; but in October their blades perish, and do not revive till January; when they shoot up vigorously; so that, in the month of March, the plants will be fit for the table.

The properties of onions in no respect differ from those of garlic, excepting that the former are less pungent and are, therefore, more generally used for culinary purposes. Many persons, however, dislike them on account of the strong and disagreeable smell which they communicate to the breath: but this inconvenience may be obviated by eating a few raw leaves of parsley, immediately after partaking of onions, the scent of which is thus completely removed, and they are at the same time rendered more easy of digestion.

Onions were formerly reputed to be an efficacious remedy for suppressions of urine, and in dropsical complaints; but, they are at present chiefly used in-external applications, such as poultices, or cataplasms for suppurating tumors, &c.—A distilled water from these roots is frequently recommended on the Continent, as an excellent solvent of the stone and gravel.

ORACHE.—A genus of plants, comprising seventeen species, of which the following are the principal, and indigenous:

1. The *Shrub-by-Orache*, or *Sea-Purslane*; growing on sea-shores; flowering in the months of July and August.—It may be easily propagated from cuttings; as it requires but little culture, and thrives well if planted in a poor gravelly soil, where it

seldom attains above two and a half, or three feet in height, and becomes very bushy : hence it is well adapted for gardens, among other low shrubs, where it displays a very pleasing appearance.—Being a marine vegetable, its ashes contain a large proportion of alkaline salt, and may, therefore, be usefully substituted for soap

2. The *Wild Orache*, *Fat-hen*, or *Lamb's Quarters*, which grows, on rubbish, dunghills, and in kitchen gardens : it flowers in the months of August and September.—This plant is sometimes used as a substitute for spinach and other greens, though it is not relished by cows, goats, sheep, or swine.

3. The *Frosted-orache*, which thrives on sea-shores, and flower<sup>s</sup> in July or August.—The fruit of this annual plant contains a viscid yellow juice which, according to *Schoepf*, a respectable German writer on pharmacy, possesses similar properties with the exotic drug, termed *Cumini-Guttæ*. Hence it may be substituted for the latter, as very powerful purgative in cases, where aqueous humours are to be evacuated ; namely, in obstinate quartan agues, the humid asthma, melancholy, and especially in the dropsy : it may be given in conserves, pills, or powders, from four to eight grains for a dose.

ORANGE-TREE.—An exotic shrub, highly esteemed on account of its pleasant and cooling fruit.

The juice of oranges is a pleasant sub-acid liquor, which has often proved of service in inflammatory or febrile disorders ; by diminishing heat, allaying thirst, and promoting the salutary discharges. It is likewise eminently useful in the scurvy, and has, therefore, been introduced into the Navy, as part of the stores of ships destined for long voyages.

Nor is the outer rind less valuable ; as it forms the basis of an excellent conserve ; and, when preserved with sugar, is deservedly esteemed in desserts, being a grateful aromatic bitter, and one of the best stomachics.—There is also an oil expressed from the orange-peel, which is sold under the name of *Bergamot*.

ORCHAL, ARGOL, or CUDBEAR.—An indigenous plant, growing upon the rocks on the coast of Guernsey ; the Isle of Portland ; and, we understand, also in some parts of the Highlands of Scotland.—This species attains the height of two or three inches, having cylindrical stems, which are internally white. It abounds on the islands of Teneriffe, and the Canaries, whence it is imported into Britain.

Argol is of a light colour, though it is sometimes found of a dark-grey : when mixed with lime, urine, and alkaline salts, this moss is formed into a dark-red paste, which has received the different names above-mentioned, and is much used in dyeing wool of a deep red or purple colour.



ORCHIS.—A genus of plants, comprising sixty-five species, nine of which indigenous ; and the most remarkable of these are :

1. The *Early Orchis*, or *Male Fool-stones*, growing in meadows and pastures ; flowering in the month of May.—According to an account inserted in the 59th vol. of the “*Philosophical Transaction*,” Mr. *Moult* maintains, that from the roots of this species is prepared the celebrated *Selep-powder*, which has been highly recommended in cases of consumption bilious dysenteries, strangury, and disorders of the chest.—The roots should be gathered when the seed is formed, and the stalk is about to decay ; for the new bulb (of which salep is prepared) has then attained its full size. After separating the new roots from the stalk, washing them in water, and removing the exterior thin skin, they are placed on a tin plate in an oven, previously heated to the degree requisite to baking bread. Thus, in about ten minutes, they will acquire the transparency of horn, without being diminished in size : next, they should be spread out in another room, where they will dry and harden in a few days : or the same object may be effected in a very moderate heat, within a few hours.

2. The *Meadow Orchis*, or *Female Fool-stones*, grows on moist meadows and pastures ; flowers in May and June.—The roots are roundish ; the stalk is about a foot high : and the leaves have the shape of a lancets. This species deserves to be mentioned here, on the authority *Bechstein*, who observes, that it is considered as possessing, and even surpassing, the virtues of the foreign salep-root ; and, though some naturalists have been of opinion, that the *Early Orchis* is the genuine root imported from Persia, yet we would recommend the culture of the meadow orchis.

Either of these species may be propagated by their roots ; which, as the seeds do not vegetate, must be planted in summer, about three inches deep, in a dry soil ; where they should remain undisturbed for several years, because they will flourish in proportion to the length of time they have been suffered to grow in the same place.—If, at any future period, this excellent vegetable should be introduced into general use, by the patriotic efforts or enlightened agriculturists, its roots will furnish a cheap, wholesome, and most nutritious substitute for many foreign drugs, such as Sago, Tapioca, Arrow-root, &c.—See also Salep.

ORPINE, THE COMMON, OR ORPINE-STONECROP.—An indigenous perennial plant, growing on pastures and in hedges ; flowering in the month of August.

This luxuriant herb may easily be propagated, either by parting the roots ; or by slips, or cuttings of the stalks, in summer ; it thrives well in dry soils, being of succulent growth ; and spreads rapidly into tufted branches ; when cultivated in gardens, on account of its variegated appearance.—A decoction of the leaves in milk, operates as a diuretic, and has accordingly been admi-

nistered, with success, as a cure for the piles.—Cows, goats, sheep, and swine eat this plant, but it is wholly refused by horses.

OSIER.—An indigenous plant, growing in woods, and hedges, especially on boggy land : it flowers in the months of April and May.

This shrub is very valuable : as its leaves are eaten by horses, cows, sheep, and goats ; its plant twigs are woven into putcheons ; wheels for taking eels ; and into bird-cages : the branches are much used for making hoops, and large baskets. Farther, it forms a hardy and useful hedge for excluding hoisterous winds ; and as it flourishes in wet situations, is frequently planted, with a view to prevent the banks of rivers from being washed away by the force of the current.

OSMUND ROYAL, FLOWERING FERN, OR ROYAL MOONWORT.—An indigenous plant, growing in watery places and boggy marshes ; bearing flowers in the months of July and August.

It is remarkable, that impressions of the leaves of this vegetable are frequently met with in the nodules, or small masses of ironstone found in the mines at Coalbrook Dale.—The root of the Osmund Royal, boiled in water, affords a thick mucilage, which, in the North of Europe, is employed as a substitute for starch, to stiffen linen.—On account of its viscid, sub-astringent nature, it was formerly often used in the gout, as well as in the rickets. It appears, however, to be better calculated for external applications, in contusions and bruises, of which, it is said, to be a powerful discutient :—as it smoothens and softens the skin, it makes a tolerable cosmetic ; and is reputed for its property of dispersing freckles, and other pimples from the face.

OX-HEEL.—See *Hellebore* the Fetid.

OX-EYE, the GREAT WHITE, GREATER DAISY, MOONFLOWER, CORN MARIGOLD, OR DAISY GOLDINS.—An indigenous plant, growing in dry meadows, pastures, and on walls : it flowers in the months of June and July.

The young leaves of this vegetable may be eaten in salads.—Horses, sheep, and goats relish this plant ; but it is refused by cows and swine.

*Bradley* recommends the culture of this elegant flower, by dividing the roots, and planting them on the largest borders of gardens, three inches deep ; as it grows quickly in any soil, but must be watered as soon as planted.

*Dioscorides* assures us, that the leaves of the great white ox-eye, when bruised, afford a good application to cold schirrous tumors ; and that a decoction of them, if taken by persons subject to the jaundice, immediately after coming from the tepid bath, will tend to restore their natural colour :—we have had no experience of its medicinal effects.

OX-TONGUE, THE COMMON, OR LANG-DE-BOEUF.—An indigenous plant, growing on the borders of corn-fields, and flowering in the months of July and August.—When young, this vegetable affords an agreeable pot-herb: its juice is milky, and not too acrid.

PADDOCK-PIPE.—See *Horsetail*, the Marsh.

PADDOW-PIPE.—See *Mares-tail*, the Common.

PAGIL, or Paigles.—See *Cowslip*, the Common.

PANIC, OR PANIC-GRASS.—A genus of plants, comprising 97 species, five of which are natives of Britain; viz.

1. The *Rough-panic*, or *Kneed-Grass*, growing in corn-fields, and on shady, dry, hillocks, chiefly in the vicinity of London; attaining the height of two feet; and flowering in the months of June and July.—It is eaten with avidity by sheep.

2. The *Green Panic-grass*, which abounds in sandy corn-fields, and flowers in the month of July.

3. The *Loose Panic-grass* (more properly Cock's foot Panic,) is found in wet corn-fields, in the environs of the metropolis, and flowers in the month of July.

4. The *Cock's-foot*, or rather *Wild panick* with blood-coloured stalks; growing in corn-fields, near Guilford, Surry; and also in the vicinity of London: it flowers in the month of July or August.—All the stems of this plant that lie near the ground, and are about 12 inches long, take root; so that each produces five ears and upwards:—though it is an annual, and seldom flourishes for any considerable time, it increases and spreads widely in gardens, where it is very troublesome weed:—*Bechstein* observes, that the Wild Panic, which, in its natural state, is an almost useless plant, may be cultivated with great advantage on a dry, loose, sandy soil. In such situations, it will produce oblong, smooth, yellowish and semi-transparent grains; which, after being divested of their husks, afford an excellent ingredient in puddings; and may also be converted into flour and bread.

5. The *Creeping Panick-grass*, abounds on the sea-shores of Cornwall; is perennial; and flowers in the month of July or August. Its roots may be employed for the same purposes as those of the *Dog's-grass*, to which we refer.

Although the different species of Panick are coarse grasses, when cultivated in a rich soil, yet we believe that few native plants deserve more the attention of those farmers, possess large tracts of a light, sandy nature, where scarcely any other vegetable will prosper.

PARSLEY, THE COMMON.—Is a native of Sardinia, whence it has been introduced into Britain. It is propagated by seed, which, according to *Millers*, should be drilled (early in the spring, as it remains several weeks under ground) in the proportion of two bushels per acre; in rows about one foot asunder, and hand-



hoed; though Mr. *Mills* (in his *Practical Husbandry*, vol. iii.), is of opinion, that the plants will flourish better; grow to a larger size; and be in all respects more perfect, if the distance between the rows be sufficient to admit a hoe-plough. He adds, that a smaller quantity of seed will be required; the culture will thus be less expensive, and, he is confident, the plants will afford better food for cattle.

This vegetable is eaten with great avidity by sheep; as it not only renders their flesh more delicious, but is also believed to preserve them from the rot; instances having occurred, where sheep fed on parsley remained sound, while those in the vicinity of the farm were uniformly subject to that disease. Mr. *Mills*, therefore, recommends these animals to be fed with it, twice in the week, for two or three hours at each time.—It may likewise be beneficially given to sheep affected with the scab or red-water; and is said to be very efficacious in recovering surfeited horses, or such as are subject to the grease.

Beside its utility for feeding cattle occasionally, parsley is cultivated to a considerable extent in gardens, for culinary purposes.—Its seeds possess an aromatic flavour, and are sometimes used as carminatives: the root is of a sweetish taste; being slightly pungent and aromatic; it is principally employed in diet drinks; but, if taken too liberally, is apt to produce flatulency.

**PARSLEY, THE BASTARD STONE.**—A genus of plants, consisting of eight species, four of which are natives of Britain. The principal of these is the Common Bastard Stone-Parsley, or Hedge Honewort; growing in moist woods and hedges; flowering in the month of June.—Its small, brown, striated, and oval seeds, possess a warm, aromatic flavour; being reputed to be aperient, diuretic and carminative, they were formerly used instead of the genuine Lesser Cardamom.

**PARSLEY-PIERT.**—A low indigenous plant; growing in corn-fields, and in dry gravelly lands; flowering from the month of May till August. It is eagerly relished by sheep, and may also be used as a salad-herb.—In its medicinal effects, it is strongly diuretic; and supposed to be an effectual solvent of the stone in the urinary bladder.

**PARSNIP, OR PARSNEP.**—A genus of plants, comprising three species, of which only the Common Wild Parsnip, is indigenous. It grows on the borders of ploughed fields, in calcareous land, and flowers in the month of June or July.—As no cattle will touch this weed, it ought to be carefully eradicated.

In a cultivated state, this plant is known under the name of the Garden Parsnip; which requires a rich deep loam, though it will also thrive in sandy soils: on the contrary, wet and stiff land is very unfavourable to its growth.

Parsnips are propagated by seed, which should be sown in the months of February or March ; and likewise in autumn, immediately after the seed is ripe, as otherwise the young plants will be over-run with weeds. If the seed be broad-cast, the plants must be thinned to the distance of 10 inches, or one foot, asunder : in case it be drilled, the rows ought to be 18 inches apart ; the roots being also left at the distance of 10 inches from each other ; horse-hoed twice ; and earthed up after the second operation, but not so as to cover the leaves.—They are very hardy ; and, if allowed to remain in the ground, are not injured by the severest frost.

Parsnips are of great value both for feeding cattle, and likewise for culinary purposes. They are reputed to be equal, if not superior to carrots, for pigs, which eat them with avidity, and fatten speedily, while their flesh becomes much whiter. If washed clean, and sliced among bran, horses eagerly devour the parsnip-roots, and thrive well ; nor are they easily heated, or liable to the disorders that often attack these useful animals, when fed with corn.

Considered as human food, parsnips are preferable to carrots ; being exceedingly nourishing, and less flatulent than the latter. In the North of Ireland, the former are brewed with hops ; and, when fermented with yeast, afford an agreeable beverage : they may also be preserved in sand for culinary use ; and, if reduced to a dry state, by cutting them in oblong slices, which ought to be suspended on strings, either in a warm room, or the open air, such roots will remain sound for any period of time. Hence, they promise to be of considerable service on long voyages ; for, by soaking them in warm water for the space of one hour, previously to the process of boiling, they will become as tender, and will taste equally sweet, as if they had been newly brought from the garden.—There is however, a precaution which deserves to be stated ; namely, that parsnips should never be dug up in the spring ; because, when the roots at that season are growing upwards for producing seed, their juices acquire a poisonous quality, and instances have occurred, in which the internal use of them has been productive of fatal effects on the human constitution, such as furious madness : this remarkable phenomenon in vegetable nature, we relate on the authority of M. Bechstein.

The seeds of parsnips are slightly aromatic, and contain an essential oil, which, according to Dr. Withering, “will often cure intermittent fevers.”

**PARSNIP, THE WATER.**—A genus of plants, comprehending sixteen species ; four being natives of Britain ; and the most remarkable of these are the following :

1. The *Broad-leaved Water Parsnep, or Skirret*, grows in rivers and fens, where it flowers in the months of July and August.—

This herb is eaten by horses and hogs, but is disliked by sheep ; the roots of this plant are hurtful to man and cattle ; and ought, therefore, to be carefully avoided :

2. The *Upper Water-Parsnep*, or *Narrow-leaved Skirret*, thrives in ditches and rivulets, where it flowers from July to September. —This plant, as Dr. *Withering*, observes, “certainly possesses active properties, which ought to be inquired into ;” and *Eechstein* remarks, that it is not less noxious in its effects than the preceding species.

3. The *Creeping or Procumbent Water-Parsnep*, grows in revulets and ditches ; flowering in the months of July and August.—This plant is very serviceable in diseases of the skin. Dr. *Withering* cured a child six years old of an obstinate cutaneous affection, by administering three large spoonfuls of the juice, twice a day. He likewise gave three or four ounces to adults, every morning, in similar complaints, with the greatest advantage. Its juice is readily taken by children, when mixed with milk ; and neither affects the head, the stomach, nor the bowels.

PEA.—A genus of leguminous plants, consisting of four species ; of which the following are the principal :

1. The *Sea-Pea*, an native of Britain ; growing on the sea-coasts, and flowering in the month of July or August.—It is eaten by horses, cows, sheep, and goats.

2. The *Common Pea*, which has long been cultivated in this country. There are two sorts of this species, known by the name of Grey, or Hog-Pea, and of the Common, or Garden-Pea. The latter is again divided into many varieties, of which gardeners enumerate not less than thirty ; but we shall only state the names of those which amply repay the labour and expence of cultivation ; namely, the Grey Hog-Pea ; the Common White Boiling-Pea ; the Charlton (or forty-day) Hotspur : the Rounceval, Blue, Large Grey, and Speckled Pease.

In order to obtain a regular supply for the table, gardeners in the usual manner cultivate the Charlton, or forty-day pea, the Golden Hot-spur, or the Masters and Reading Hot-spurs, which afford crops in succession. The greatest care, however, is necessary, to clear them from weeds in the spring, and also from vermin, which will otherwise destroy the whole produce. Their most formidable enemies are slugs, which particularly infest wet soils, or such gardens as are over-run with weeds. These insects conceal themselves during the day in small cavities under ground, and come forth in the night, when they do extensive mischief. With a view to check such devastations, it will be adviseable, first to clear the land around the plants, then to destroy their recesses, and next to scatter a little slaked lime over the ground, very early in the morning, when the vermin are in motion. By this simple expedient, they will be effectually exterminated, without any



injury to the pease, provided the lime be not too thickly spread over the plants.

In common with all other leguminous fruits, pease possess a strong mucilage, with an earthy basis, and yield a very solid nourishment to persons of vigorous stomachs; but, as pulse of every description evolves a considerable portion of fixed air within the bowels, it is apt to excite flatulency and costiveness, if eaten too frequently, or in too large quantities. On the other hand, pease boiled in a fresh, or green state, are equally wholesome and agreeable; being less flatulent, and more easily digested, than after they have attained to maturity.—Bread formed and baked, of pease alone, is remarkably solid, heavy, and unwholesome. *Beckmann* informs us, that such bread, while new, had an agreeable taste, but was productive of hoarseness and sore-throats.—Experience, however, has evinced, that three parts of rye-flour, and one of ground pease, afford a palatable and more nourishing bread, than that made of wheat or rye alone.

**PEA, THE HEATH, OR PEASLING.**—An indigenous perennial plant growing on moist heaths and in woody meadows; flowering in the months of April and May.

This hardy vegetable may be easily propagated, either by parting the roots, or sowing the seeds in autumn; and prospers in any common garden soil.—Its root has a sweet taste, similar to that of liquorice: is highly nutritious when boiled; and has in times of scarcity, served as a substitute for bread.—It is likewise held in great esteem by the Highlanders of Scotland, who chew it like tobacco; and assert, that it obviates the uneasy sensation of hunger. In the counties of Breadalbane and Ross, the inhabitants bruise and steep the roots of the heath-pea in water, from which they brew an agreeable, though intoxicating, liquor.—In medicine, they are employed to promote expectoration, and supposed to be very efficacious in pulmonary complaints.—The herb is relished by horses, cows, goats, and sheep.

**PEA, the NARROW-LEAVED EVERLASTING, OR VETCHLING.**—An indigenous plant, growing in woods and hedges, chiefly in the south-western counties of England; and flowering in the months of July and August.—This winding herb is well-calculated for arbours: its red blossoms are beautifully veined, and eagerly visited by bees; though the plant itself is said to be noxious to sheep.

**PEACH-TREE.**—A well-known exotic fruit, originally brought by the Romans from Persia to Italy.

There are numerous varieties of this tree, cultivated on account of heir delicious fruit:

The best peaches have a delicate thin rind, a mellow, juicy pulp, and a delicious flavour. They are highly esteemed at the table, as an article of the desert; but, if preserved in wine,

brandy, or sugar, they lose their good properties. In a ripe and fresh state, they are slightly aperient. Their kernels are likewise a salubrious bitter, and are supposed to be detergent,

The flowers of peaches emit an agreeable fragrant odour, and have a bitterish taste. If distilled in a water-bath, they yield a whitish liquor, about one-sixth part of their weight; and which communicates to a large quantity of other liquids, a flavour similar to that of the kernels themselves.—An infusion of half an ounce of the fresh-gathered flowers, or a dram of them when dried, in half a pint of boiling water, sweetened with a little sugar, is said to be an useful laxative, and vermifuge, for children.

**PEAR TREE.**—A valuable indigenous tree, growing in woods and hedges, in various parts of Britain; and flowering in the months of April and May.

The pear-tree delights in rich soils and gentle declivities; but will not thrive in moist situations. It resists the severest frosts; its wood is smooth, light, and compact; and is used in considerable quantities by turners, for making carpenter's or joiner's tools, and for picture-frames, which are stained black, in imitation of ebony. The leaves impart a yellow dye, and are sometimes employed to communicate a green colour to blue cloth:—they are eaten by horses, cows, sheep and goats.

In a wild state, the fruit of the pear-tree has an austere and unpleasant taste; but, when cultivated, it is highly grateful; and skilful gardeners have obtained not less than 1500 varieties, by inoculating, in marching, engrafting, &c. the common wild stock, with scions of other fruit-bearing trees.

All the varieties of this tree are hardy, and will succeed in any common garden-soil, provided it be open and dry. They are propagated by engrafting, and by budding, or inoculating either upon free stocks, that is, such as have been raised from seed, or upon quince-stocks: the latter, however, require a rich and moist soil. Sometimes the scions are engrafted on medlars, in order to render them dwarfs; and nursery-men have also ventured to bud them on white or hawthorns, when there has been a scarcity of original or free-stocks. But such practice ought to be adopted only in cases of real necessity; as it renders the fruit stony, and otherwise diminishes its value. The relative salubrity of pears depends not less on the state of ripeness, or immaturity, in which they are used, than on their different properties; some of them being hard, astringent, and difficult of digestion.—The more juicy ones, however, possess a saccharine fluid, which does not oppress the stomach: nevertheless, all the varieties are more flatulent than apples, plums, or the generality of fruit; and winter-pears are particularly liable to such inconvenience; as they

## 156 PELLITORY.—PENNYROYAL.—PENNYWORT.

are commonly eaten at a period of the year, when the stomach requires stimulating, rather than cooling, nourishment.

Independently of their utility for domestic or culinary purposes, pears (if managed in a similar manner with apples for making Cyder) afford a pleasant liquor, known under the name of Perry. The best fruits for this purpose are those of Bosbury and Bareland, in the county of Worcester, and the Squash-Pear, as it is termed, in Gloucestershire; to which may be added the varieties known under the names of the *John*, *Harpary*, *Drake*, *Lullum*, and *Horse-Pears*. All these, being reared in hedges, are so extremely harsh and tart, that no person can eat them in a fresh state; and they are refused even by hogs.—Perry is subject to the same duties as cyder, which are stated p. p. 113-14, of the second volume of Willich's *Encyclopædia*.

**PEARLWORT**, the **PROCUMBENT**, **TRAILING PEARLWORT**, or **BREAK-STONE**.—An indigenous perennial plant, growing on walls; in sandy and boggy situations; in garden-walks, and paved courts: it flowers from May to August.—This elegant herb is one of the smallest productions of the vegetable kingdom: its thread-like stem divides itself into many branches; the leaves are slender and minute; the blossoms greenish-white: and the whole plant scarcely exceeds two inches in height.

**PELLITORY-OF-THE-WALL**, the **COMMON**.—An indigenous plant, growing on old walls, and among rubbish; flowering from May to September.

The leaves of this vegetable, when dry, exhibit a glassy appearance: and, if strewed on heaps of corn infested with weevils, are said to destroy these predatory insects.—In cases of strangury three ounces of the expressed juice of the plant, taken internally, or, a fomentation made of the leaves, applied to the parts, are said to be of service, on account of its cooling and diuretic properties.—Although chemists pretend to have extracted considerable quantities of nitre from the pellitory, yet we doubt whether this herb would answer the trouble of boiling it, and crystallizing the salt-petre; unless it were collected from such ground as is naturally impregnated with nitrous particles, which may more easily be obtained from the earth itself.

**PENNY-CRESS**.—See *Mithridate-Mustard*.

**PENNY-GRESS**.—See *Yellow-rattle*.

**PENNYROYAL**.—An indigenous plant, growing on moist heaths and pastures; flowering in the months of August and September.—This herb possesses properties similar to those of the mint; but it is more acrid, and less agreeable to the palate. it has long been esteemed as an aperient and deobstruent, particularly in hysteric and other female complaints. Hence, the distilled water is generally preferred; though an infusion of the leaves would answer the purpose, without giving an opportunity



for tippling.—Dr. *Withering* observes, that the expressed juice of pennyroyal, with a little sugar, is an useful medicine in the whooping-cough.

**PENNYWORT**, the **MARSH**.—An indigenous perennial plant, growing in marshy or inundated grounds; and flowering in the months of May and June.—This herb is supposed to occasion the rot in sheep: it certainly contains an acrid, poisonous juice, which, according to *Bechstein*, produces in the animals feeding on it, inflammations, bloody urine, and other mortal symptoms. Hence, every industrious farmer will endeavour to eradicate the pennywort from his meadows.

**PEPPER-MINT**.—See *Mint*.

**PEPPERWORT**, **DITTANDER PEPPERWORT**, OR **POOR-MAN'S-PEPPER**.—An indigenous plant, growing in meadows and pastures, where it flowers in the months of June and July.—The whole plant possesses an extremely hot taste, not unlike pepper; and the leaves are frequently employed by the country people, as a substitute for that spice.—It is esteemed an acrid antiscorbutic; was formerly used instead of the *Horse-radish Scurvy-grass*; and may be easily propagated by its spreading roots.

**PERRIWINKLE**, the **LESSER**.—An indigenous perennial plant, growing in woods and hedges, principally in the vicinity of Hampstead, and also in the environs of Manchester: it flowers in the month of May.—The leaves of this evergreen are smooth, glossy, and resemble those of the laurel: if suspended in a cask of wine recently filled, they not only clarify the liquor, but also improve its taste.—*Gloditsch* has successfully employed the whole plant, while in blossom, for tanning leather. In Germany the country girls construct their garlands of these elegant leaves, during the winter.

**PETTI-GREE**, the **PRICKLY**.—See *Knee-holly*.

**PETTY-MUGUET**.—See *Cheese-rennet*.

**PETTY-WHIN**.—See *Rest Harrow*, the *Thorny*.

**PEWTER-WORT**.—See *Horse tail*, the *Rough*.

**PHEASANT'S-EYE**, the **AUTUMNAL**, **CORN ADONIS**, **ADONIS FLOWER**, **RED MAITHES**, OR **RED MOROCC**.—An indigenous annual plant, growing in corn fields, and flowering in the months of June and July.—It may be easily propagated from seeds, which ought to be sown in a light soil, in autumn, soon after they are ripe: as otherwise they seldom succeed. When the plants appear above ground, they should be carefully weeded, and occasionally watered in dry weather; but it will not be advisable to remove them till the autumn of the second year; when they may be transplanted to the place of their destination.—The beautiful scarlet blossoms of this plant greatly recommended its culture in gardens; incalculable quantities of them being sold in the metropolis under the name of *Red Morocco Flowers*.

PIG-NUT.—See *Earth-Nut*.

PILEWORT, the COMMON, or LESSER CELANDINE.—An indigenous perennial plant, growing in meadows and pastures; and flowering in the month of April.—This herb may be eaten in the spring, either boiled or in salads.—Its root is uncommonly acrid, and blisters the skin; so that it may be employed as a vesicatory. Nevertheless, *Bryant*, a French traveller, informs us, that, by skilful managment, a tolerably good *starch* may be extracted from these roots.

PIMENTO.—See *Allpice*.

PIMPERNEL, the BASTARD, or SMALL CHAFFWEED.—An indigenous low plant, which grows in salt-marshes and meadows near the sea-coast; flowers in the month of June, and seldom exceeds one inch in length.—For this useless weed, other vegetables thriving in sandy situations, ought to be substituted: in order to consolidate and improve the soil.

PIMPERNEL, the SCARLET.—An indigenous plant, growing in corn-fields and sandy places; flowering from May till August.—Dr. *Withering* observes, that every part of this plant is singularly beautiful; according to *Bechstein*, it is much relished by sheep, and its flowers were formerly in great repute, for their supposed efficacy in curing the bite of a mad dog, as well as the giddiness in sheep.—It is farther remarkable, that these flowers regularly open between eight and nine o'clock in the morning, and close their petals at four in the afternoon.

PINK.—A genus of plants consisting of 23 species, six of which are indigenous, viz.

1. The *Deptford Pink*, which grows in gravelly meadows, and flowers in July or August.

2. The *Sweet-William*, which is common in gardens, and flowers in July.

3. The *Proliferous Pink*, *Childing Pink*, or *Sweet-William*; abounds in sandy-meadows and pastures, where its flowers appear in July.

4. The *Common Pink*, or *Carnation*. See *Clove-Pink*.

5. The *Maiden Pink*, grows in great abundance on sandy meadows, pastures and heaths, in various parts of Britain; it is in bloom from July to October.

6. The *Mountain Pink*, thrives in dry mountainous situations, principally on the Chedder Rocks, in the County of Somerset. It is perennial, and flowers in the month of July or August.

All these species are beautiful plants, very generally cultivated in gardens, on account of their fragrance. They are propagated by seeds, as well as by slips, and layers; the latter of which should be planted three inches apart, towards the end of July, in shady borders that have previously been well dug and moistened. Should the weather prove dry, it will be necessary to water the

slips, &c. daily, till they have taken root: after which no farther care will be required than to clear them from weeds, and to transplant them in autumn to those borders which they are designed to decorate.

**PISTACHIA-TREE.**—Is a native of Arabia, Persia, and Syria; where it grows to the height of 25 or 30 feet, and is cultivated on account of its fruit; which is imported into Europe, under the name of Pistachio Nuts.

This tree being seldom propagated in Britain, on account of its delicate nature, and the great attention it requires, we shall only observe, that its fruit is of the size of pease; has an unctuous and pleasant taste, somewhat similar to that of almonds; and abounds, like these, with a sweet and palatable oil, which is obtained by expression.—Pistachio nuts are reputed to be wholesome and nutritive: hence, persons reduced by long illness, may eat them with advantage, in moderate quantities, provided such oily food should not disagree with their digestive organs.—These nuts pay, on importation, the sum of 3½d. per lb.

**PLANE-TREE.**—A genus of trees, comprising two species, viz.

1. The Eastern Plane-tree, which is a native of Asia, and the Levant, where it attains a stupendous height, so that it is usefully employed in ship-building.

2. The Western Plane-tree, which is indigenous in Virginia, and other parts of North America, where it grows to an uncommon size; instances having occurred, of trees measuring eight or nine yards in circumference; and which, when felled, produced twenty loads of wood.

Both these species are highly esteemed for their beautiful and majestic appearance: and, though their leaves decay early in autumn, they are industriously cultivated in their native countries, especially along public walks, and other places of resort, on account of their agreeable, cooling shade.—The plane-tree is very hardy, and will flourish in any common soil or exposure: it may be easily propagated by seed, cuttings, or layers, which should be committed to the ground in autumn. For this purpose, the soil ought to be somewhat moist, and in a shady situation; it should be formed into beds about four feet in width, which must be well dug and raked for the reception of the seed, cuttings, &c. These should be placed four inches apart: in the succeeding spring, the young plants will appear; and, at the end of one or two years, they may be removed into nurseries, where they are to remain, till of a sufficient size to be finally transplanted.

The deciduous tree, particularly the American species, grows rapidly, and is one of the greatest ornaments of modern plantations: its wood is excellent for various articles of domestic fur-



niture, especially for tables : because, at a certain age, it abounds with veins, and when rubbed with oil, surpasses in beauty that obtained from the finest walnut-tree.—The dry leaves and branches of the Western Plane-tree, according to *Dambourncy's* experiments, afforded a decoction of a very bright red-brown tint ; which, on adding different ingredients, either assumed various shades, or remained unaltered ; so that they may with advantage be employed in dyeing.

PLANTAIN.---A genus of plants, comprising 39 species ; the following of which are indigenous, and deserve attention.

1. The *Greater Plantain*, or *Way-bread*, is perennial ; grows on road-sides ; and flowers from June till August---According to *Dr. Withering*, the country people apply the bruised green leaves of this vegetable to slight wounds.--Cows and horses do not relish the plant, but it is eaten by sheep, goats, and swine.

2. The *Ribwort-Plantain*, or *Rib-grass*, is also a perennial plant, very common in pastures, and flowers in the month of June.---*Linnaeus* remarks, that this herb is eaten by horses, sheep, and goats, but wholly refused by cows ; though the richness of the milk in the noted Alpine dairies, is, by *Haller*, attributed to the nutrient derived from this plant, and the Common *Ladies-Mantle*.---The former is often cultivated for pasturage, but does not answer the purpose, unless combined with clover or other grasses. The total absence of rib-grass, in marshy lands, is a certain criterion of their indifferent quality ; and, in proportion as such soils are improved by draining, this plant will flourish and abound.---*Dr. Withering* observes, that when it grows detached from other grasses, for instance, by the sides of foot-paths, he has never known cattle to touch the Ribwort-Plantain ; but that they certainly eat it, when mixed with other herbage.

3. The *Buckshorn-Plantain*, *Star-of-the-Earth*, or *Hartshorn*, grows on gravelly soils, near the sea-shore ; and flowers from June till August.---There are two indigenous varieties of this species ; namely, the Common Buckshorn, which abounds on heaths ; and the Narrow-leaved Welch Plantain, that flourishes on the mountains of that country.---Both afford wholesome food for horses ; and *Bechstein* informs us, that they have, in Germany, been used with great success for curing the bite of a mad dog, as well as that of other raving animals.

PLANTAIN, the GREATER-WATER, or THRUMWORT.---A native perennial plant, growing in watery places, on the banks of pools and rivers ; and flowering from July to August.---This acrid and poisonous vegetable is extremely deleterious to sheep and cattle : hence it ought to be carefully eradicated in the spring, or summer, before it can be farther propagated by its seeds.

PLOUGHMAN'S-SPIKENARD.---See *Flea-Bane*.

PLUM-TREE.--A genus of plants, comprising fifteen, but ac-

According to *Bechstein*, thirty species; five of which are reared in Britain, namely:

1. The *Bird-cherry*; and,
2. The *Common Wild Cherry*.

3. The *Bullace-plum*, or *Black Bullace-tree*, which grows in hedges, and flowers in the month of April.—The fruit of this species is of an austere, but pleasant sub-acid taste, especially when it has become mellow by the frost. It is of a dark-blue colour (there is also a variety which is white); of a globular shape; double the size of common sloes; and next kin to plums. In Germany, it is preserved in vinegar and spice; though the Bullace-plum may also be profitably converted into brandy.—The wood of this tree is beautifully veined, and highly prized by turners.—The bark of the roots and branches has styptic properties; and Dr. *Withering* observes, that an infusion of the flowers, sweetened with sugar, is a mild purgative, well adapted for children.

4. The *Sloe-tree*, which See

5. The *Common Plum-tree*; which abounds in hedges, where it is supposed to be propagated, from stones planted by birds. It delights in lofty situations, and does not prevent the grass from growing beneath its shade.—Its bark imparts a yellow dye.

All the different varieties of plums have originally been raised from the stones, and afterwards grafted or budded on plum-stocks. The best for this purpose is the Sloe-tree, or Black-thorn, on which they are engrafted in the usual manner.

Beside their utility as a culinary fruit, plums possess valuable medicinal properties. In a dried state, they are called *Prunes*, and are eminently useful in cases of costiveness accompanied by irritation, that would be aggravated by powerful laxatives; but they ought not to be eaten after long fasting, or for supper, unless mixed with other aliment; as they are apt to produce flatulency. With this exception, they suit almost every constitution, and produce both cooling and aperient effects; but, when prunes do not operate sufficiently, their power may be increased by combining them with a small portion of rhubarb, or cream of tartar.

If *plums* be eaten in a fresh state, or before they are perfectly ripe, and in immoderate quantities, they induce colics, looseness, and similar affections in the stomach and intestines. The larger kinds, especially, ought to be used seldom, and with great precaution, being more dangerous than the smaller plums; because the former are rarely permitted to attain to maturity.

POLYANTHUS.—See *Primrose*.

POLYPODY.—A genus of plants comprising 142 species; 18 of which are indigenous, but the following only deserve to be mentioned:

1. The *Common Polypody*, is perennial; grows on old walls, shady places, and at the roots of trees: it flowers from June till October.—The root of this plant has a sweetish taste; but, by long boiling, it becomes bitter. When fresh, it operates as a mild laxative, so that an infusion of six drams of this root, in half a pint of boiling water, may be taken in divided doses.

2. See *Fern the Male*.

3. The *Heath Polypody*, thrives on most of the dry hills of Scotland; also in moist woods, and mountainous situations of England. It flowers from July to October.—This plant is likewise perennial, and its leaves emit a very agreeable scent.

POND-WEED, THE BROAD-LEAVED.—An indigenous perennial plant, growing in ponds and slow rivers; flowering in the months of July and August.—The leaves of this weed float upon the surface of the water, and thus afford an agreeable shade to fish: its roots are said to be exceedingly grateful to swans.

POOR-MAN'S PEPPER.—See *Pepperwort*.

POPLAR.—A genus of trees comprising 13 species, of which the following are natives of Britain:

1. The *White Poplar*, or *Abele-Tree*, grows in hedges and brooks, where it flowers in the month of March.—It delights in gravelly soils and lofty situations, though it also thrives in clay-lands.—This tree is remarkable for its speedy growth; as it attains its full size in 20 years; being, however, subject to excrescences resembling warts, that sometimes become exceedingly large; and, as they absorb humidity, occasion the tree to decay. Its wood is white, soft, though tough, and neither exposed to the ravages of worms, nor subject to warp or shrink: hence it is advantageously employed for wainscotting and floors; as well as for packing-boxes, laths, and turnery-wares.—The bark of the white poplar, according to the Rev. Mr. Stone is eminently serviceable in curing agues. He gathered it in the summer, while abounding with sap; and, after drying it in a gentle heat, he administered one dram, in powder, every fourth hour, between the paroxysms. In some instances, he was induced to combine it with the Peruvian bark; but, in general, the former alone proved singularly efficacious.—The dried leaves in the winter afford excellent provender for sheep.

2. The *Trembling Poplar*, *Asp*, or *Aspen-tree*, flourishes best in moist woods and boggy grounds, though it will thrive in all other soils, excepting clays: it is in flower during the months of March and April. This species impoverishes the land: its leaves destroy the grass, and the numerous shoots that spring from the roots, spread so near to the surface of the ground, as to prevent the vegetation of every other plant. The leaves are eaten by sheep and goats, but refused by horses and hogs:—the bark, when young, is made into torches. The wood is extremely light, smooth,



white, soft, and durable in the air; and though inferior in point of excellence to that of the preceding species, it is usefully employed for pannels or pack-saddles, milk-pails, clogs, pattens, &c. —From the straight stems of this tree, the most durable shingles are obtained; and *Du Roy* observes, that bricks burnt with such wood, in a green state, acquire a blueish glazing, and additional firmness. Nor is it less excellent for water-pipes; for which purpose it should be felled from April to June, immediately bored, and laid under-ground. It is, however, remarkable, that the wood of the trembling poplar is very liable to be infested with bugs; and consequently improper for bedsteads.

3. The *Black Poplar*, grows very rapidly near rivers, and in shady, moist situations: it flowers in the month of March. The wood of this species is soft, light, and not apt to splinter. Its bark is uncommonly light, resembling cork, and is therefore employed by fishermen to support their nets: the inner-rind is used by the inhabitants of Kamschatka as an ingredient in their bread. —The buds, which appear early in the spring, contain an unctuous, yellow, fragrant juice, which is the basis of *Bee-glue*, and is employed only in ointments for plasters; though its medicinal properties recommend it for internal use:—if formed into a tincture, by means of rectified spirit, and then inspissated, the buds yield an odorous resin, that is reputed to be equal to many of the expensive resinous drugs imported from foreign countries.—The leaves afford a good winter fodder for cattle, and should be collected in October, before the branches are cut for faggots —Lastly, the roots of the black poplar dissolve into a kind of jelly. —The wood is useful for the engraver; and, when sawed into boards, and sap-dried, is uncommonly durable.—*Dioscorides* asserts, that the bark of this tree, when chopped small, sown in richly-manured ground, and well watered, will produce an abundant crop of eatable mushrooms: yeast diluted with warm water, and poured on a stump of the black poplar, will be attended with a similar effect; but these fungous plants ought to be gathered after the first autumnal rains.

Poplars may be propagated either by layers, cuttings, or suckers, which should be planted in a nursery for two or three years previously to their removal. The most proper time for transplanting suckers is in October, when their leaves begin to decay; but, if the trees are to be reared from cuttings or layers, it will be advisable to set them in February, when they ought to be put about a foot and a half deep in the ground, and closely rammed in. These will speedily take root; and, if the soil be moist, will in a few years attain a considerable size.

POPPY.—A genus of plants comprising nine species, eight of which are indigenous: the following, of these, are the most remarkable:

1. The *Red Poppy*, *Corn-rose*, *Cop-rose*, or *Head-wark*, grows in corn-fields, and flowers from June till August. The petals, when infused, yield a fine colour : and a syrup is prepared from such infusion, which partakes in some measure of the properties of opium, and is occasionally used in coughs, and catarrhal affections, on account of its anodyne effects.—These flower-leaves also yield, on expression, a bright red juice, which imparts its colour to water, and the tint of which may be greatly improved by the addition of the vitriolic acid. Thus cloth, linen, and especially silk and cotton, were dyed of a beautiful deep-red shade.—The stuffs, previously immersed in a solution of bismuth, acquired a yellow cast ; though *Dambourney* obtained only a pale nut-colour.

2. The *White* or *Wild Poppy*, is found in neglected gardens and corn-fields, where it flowers in the month of June or July. The juice, which, after making incisions, exudes from the heads of this species, is suffered to inspissate by the heat of the sun, and thus affords the drug called *Opium*. An extract is also prepared from these seed-vessels ; which being less powerful than the foreign opium, is given in a double quantity, to produce similar effects. The seeds are very nourishing ; are divested of the narcotic property of the flower ; and yield on expression a mild, sweet oil, little inferior to that of almonds : hence, they are often employed as an article of diet.—*Linnaeus* counted in one poppy-head 32,000 seeds ; and as there are white and blue grains, we understand from an experienced gardener, that the former, when found in heads, the capsule of which is of a blueish cast, are the most successful for propagating the species, and likewise afford a larger proportion of sweet-oil than the blue seed.

Poppies grow in almost every soil, but they flourish most luxuriantly in rich loamy ground, well manured with rotten dung, and frequently ploughed or turned, so as to render it mellow. The seeds may then be either drilled in rows about nine inches apart, or sown broad-cast, first towards the end of February, and a second time in March : though the latter process is sometimes followed, for winter-seed, in the month of September or October. As soon as the plants appear, they must be carefully weeded, by which means their growth will be promoted ; so that each root will produce from four to ten heads, or pods, containing large variegated flowers. When the leaves begin to wither, it will be proper to extract the opium ; for this purpose, four or five longitudinal incisions, about one inch in length, must be made on one side of the head, so as to cut through the outer or scarf-skin, without injuring the seeds. In consequence of such wound, a glutinous milky fluid will exude, which should not be removed till the succeeding day, when it ought to be scraped off into proper vessels ; and, in the course of one or two days, the opium will be of

a proper consistence to be formed into a mass. The opposite side must next be wounded in a similar manner, in order that the viscous juice may be completely extracted.

3. The *Prickly*, or *Rough-headed Poppy*, is an annual plant thriving in corn-fields; flowering in the months of June and July.—This weed much resembles the Red Poppy, and grows in similar places, though the former delights more in a sandy soil: hence it ought to be distinguished from the genuine plant, by its prickly seed-capsule, and the black points of its red flower-leaves.

POPPY, THE HORNED OR CELANDINE.—A genus of plants consisting of six species, four of which are natives of Britain; the most remarkable of these are the following;

1. The *Greater* or *Common Celandine*, grows under hedges, in rough shady places: on rubbish, and uncultivated ground: it flowers from May till July.—The herb is of a bluish-green colour, the root of a deep red, and both contain a yellow juice: their smell is disagreeable, the taste somewhat bitter, very pungent or burning in the mouth; and the root is extremely acrid.

This juice, when deluted with milk, consumes white opaque spots upon the eyes, destroys warts, and cures the itch. Dr. *Wuthering* is of opinion, that a medicine of such activity will, at some future period, be converted to more important purposes.—Horses, cows, goats, and swine, refuse to eat this herb.

From saffron-coloured juice of the Greater Celandine, no permanent colour could be obtained in the experiments made by continental dyers; but according to the assertion of *Rosig*, a reputable German author, the whole plant produced, by fermentation, a good blue-colour, similar to that obtained from *Woad*, a fact well deserving the attention of dyers.

2. The *Red Horned-Poppy*, or *Red Celandine*, is found in corn fields, in the county of Norfolk: its reddish flowers appear in the months of July and August.—This species is cultivated in gardens for the beauty of its flowers; but the whole plant is an acrid and narcotic poison.

POTATOE, THE COMMON.—A valuable root, originally a native of America, whence it was introduced into Ireland; and subsequently into Britain, about the commencement of the 17th century.

There are numerous varieties of the potatoe, which are cultivated both for culinary purposes and for the feeding of cattle. The most remarkable of these are: the Common Kidney; the Red American Kidney; the Aylesbury White; and the Altringham Early White; which are chiefly reared for the table; as the Ox-noble (for the most part in Nottinghamshire;) Surinam; Irish Purple; Howard or Clustered; and Red Potatoes, are for fodder.



The common mode of planting potatoes is, by setting the small roots entire; or, by cutting the larger ones to pieces, and reserving one eye or bud to each: it appears however, that the rind may be employed with equal advantage; as crops have thus been produced, which fully equalled those obtained from seeds, sets, shoots, or by any other method.

These plants will flourish in any tolerable soil; but they thrive most luxuriantly in light sandy loams, that are neither too moist nor too dry. Such lands ought to be ploughed, two or three times; and, shortly before the ground is stirred for the last time in the spring, it will be necessary to spread a considerable quantity of rotten dung on the surface, which should be ploughed early in March, provided the weather be open; but, if it be frosty, this operation must be delayed till the end of that month, or the beginning of April. After the last ploughing, the ground ought to be levelled; the furrows drawn at a distance of three feet apart; and at the depth of about seven or eight inches. In the centre of this furrow are to be set the rind, eyes, cuttings, &c.; and then covered in with the earth. A short time before the young plants appear it will be advisable to pass a harrow over the whole in order to radicate weeds, to break the clods, and to remove every obstacle to their vegetation.

Farther, as the potatoes increase, it will be proper to mould, or earth them up twice.

Beside the depredations of worms, grubs, and various other insects, to which potatoes are subject in common with other vegetables, there is a disease termed the curl, that peculiarly affects these roots; and for which ingenious agriculturists have endeavoured to account by various conjectures.—By some it is considered as a species of blight, but it is more generally attributed to one or more of the following causes:—1. Frost, either before, or after the sets, &c. have been planted. 2. The planting of such sets, from large unripe potatoes. 3. From not placing them at a sufficient depth, or from putting them in exhausted lands. 4. By the first shoots of the sets having been broken off previously to planting; in consequence of which, the seminal plant is incapacitated from sending forth other shoots sufficiently vigorous to expand. 5. To a white grub, that preys upon the roots. 6. To the propagation of shoots, sets, eyes, &c. constantly from the same variety, and on the same land; so that the potatoes degenerate, and at length yield very indifferent crops.

In the 8th volume of the *Transactions of the Society for the Encouragement of Arts*, &c. we meet with an interesting communication on the curl, by Mr. *W. Hollins*, who divides the disease into three different stages, viz.

1. The *Half Curl*, in which the leaves of the plants are somewhat long, and slightly curled: they produce, however, tolerable crops, if the summer be not too dry; otherwise the potatoes will be small and watery.

2. The *Full Curl*: in this stage the plants seldom exceed the height of six or seven inches; speedily attain to maturity, and decay. The potatoes are, in general less than a nutmeg; of a dusky-red colour; and are extremely unwholesome as an article of food.

3. *Corrupted Potatoes*, the vegetative power of which is almost destroyed, never appear above the surface of the ground. The seed will be found at Michaelmas in a state, apparently as fresh as when it was first set; a few small potatoes, perhaps, growing from the parent root.

This accurate observer attributes the curl first, to late-setting in rich soil, succeeding by a hot, dry summer; in consequence of which, the flower of the plant falls off; the seed is exhausted in feeding the plant; and few potatoes appear. Should moist weather occur in autumn, the plants, after being earthed, will blow a second time, and a plentiful crop of potatoes will be produced. These are, in his opinion, perfectly wholesome as food; but, being generated from the stalk of the plant after the seed had been exhausted, their vegetative power is defective, and the plants that proceed from them, will necessarily be curled.

The second cause of this disease, Mr. *Hollins* attributes to the forcing of potatoes, by setting them in too rich a soil. His preventive method consists in planting them early, in ridges about one yard apart, having previously spread a little manure in the trench.—They are to be set in a triangular form, five or six inches distant, and covered with soil to an equal depth: thus they will be protected from the heat of the sun, in case the weather be too dry, while they remain sufficiently apart for receiving the full benefit of the air. When the plants have attained the height of six or seven inches, he directs them not be earthed up, but to be occasionally weeded.—By this simple method, roots will be formed in due season, and grow gradually; and, as the stalk will decay at the proper time, the sap will be left in the potatoe, and become a seed, possessing a perfect power of vegetation; so that the plants raised from it will be wholly exempt from the curl.

There prevails another opinion respecting this disease, namely, that it is contagious; but such notion has been ably combated in the 2d vol. of *Communications to the Board of Agriculture*; where it is observed, that whatever tends to render a crop poor and weakly, is very apt to produce the curl: hence, the disease probably originates entirely, or in a great measure, from the following causes: 1. Land, altogether unfit for potatoes. 2.

Imperfect culture. 3. Small roots ; or too small a proportion of strong roots. 4. Sets, taken from roots that have sprouted early, and the germs of which have been rubbed off. 5. Too small, as well as too large a quantity of dung. 6. Too deep, or too shallow planting. 7. Every external impediment that may injure new plants. 8. Too stiff ground, or such as has been pressed down too closely on the sets. 9. An unfavourable state of the weather, while the crop is young.—The result of the writer's inquiries briefly is, that, if the curl be not a disease, but merely an incidental debility, it may be prevented by diligent attention to all those circumstances ; which, according to experience, are essential to the prosperous cultivation of potatoes.

It is difficult to decide, amid this difference of opinion among practical agriculturists ; but, as these roots materially contribute to the comfort of mankind, we have discussed the subject at some length ; and shall now concisely state those remedies which have been successfully adopted. These are, steeping the sets for two hours, in a brine made of *Whitser's* ashes ; changing the seed, raising new kinds from the seed, or apple of the plant ; or renewing the same sorts again from the same seed ; and, lastly, salt is said to be an excellent preventive against the depredations of the grub.

Beside the curl, potatoes are liable to two other disorders, viz. the scab, which consists of excrescences that arise in very dry seasons ; and the canker, which is occasioned by small cavities, that appear in wet weather. These defects have been conjectured to be in some measure the cause of the curl ; and they increase, according to the length of time the potatoes remain in the earth, after the roots have attained to maturity.

The proper time for digging up potatoes, is in the dry weather of autumn, when the leaves and stems begin to decay. If they are cultivated on a small scale, this work is performed by means of a three-pointed fork, furnished with flat tines : but, when raised in fields, the roots are turned up by a plough, the coulter of which is taken out, to prevent them from being cut. After those, which appear on the surface, are collected, a pair of drags is passed over the whole ; in order to separate and expose such as may adhere to the clods.

The potatoe is one of the most valuable roots for culinary uses : when boiled, it forms a principal article of food, and serves partly as a substitute for bread. Mixed with wheaten flour, fermented with yeast, and properly baked, it makes a wholesome and nutritious loaf.

Independently of the essential use of these roots for culinary purposes, they afford excellent food for cattle. Thus, if half a pint of salt be added to every 300lbs. of potatoes. previously washed and steamed, together with a small portion of sulphur ;



this mixture, it is said, will support six horses per day with such effect that the animals will be enabled to perform constant labour, without the allowance of either hay or oats. Farther, bullocks fatten more speedily on potatoes, than on cabbages or turnips, especially if a double portion of chopped hay or straw be mixed with the former. Cows also thrive well on these roots; so that with one bushel per day, together with a little hay, they will yield as large a quantity of sweet milk, or butter, as they usually produce, when fed on the finest grasses.

Potatoes are likewise serviceable in fattening sheep, and especially hogs; but, if the latter be designed for bacon or hams, it will be advisable to mix gradually four bushels of ground pease, with an equal quantity of the boiled roots: which portion will, it is affirmed, fatten an animal of twelve stone.—In a boiled state, they may also be given to poultry with similar effect.

Formerly, a kind of brandy was distilled from these roots: but the Legislature has wisely prohibited such practices.—Besides, a fine size may be prepared from potatoes, which will answer all the purposes of that in common use, particularly for whitening ceilings and walls. With this intention, any quantity of newly-made potatoe-starch should be boiled into a paste; a sufficient portion of which ought to be mixed with the whiting, after the latter has been diluted with water. The coat thus prepared is much clearer; retains its whiteness longer; and is less liable to crack or scale, than such as is mixed with animal glue.—There is another economical way of employing the water expressed from potatoes in the processes of making starch or size. This liquor is useful for washing linen, whether plain or coloured, silk handkerchiefs, stockings, &c. without the aid of any ley or soap: it is said to improve rather than to diminish the tint, while it restores their original brightness, and imparts a degree of stiffness to silk stuffs, which cannot be obtained by the common method of cleaning them. It deserves, however, to be remarked, that no discoloured or otherwise damaged roots must be used for this purpose.—Bakers in Germany, farther, convert the pulp of potatoes into yeast, by adding a small portion (about the 8th or 10th part) of the latter, together with two drams of calcined and pulverized crab's-claws or oyster-shells, and a similar quantity of burnt hartshorn, to every pailful of the preparation. This compound is asserted to increase the bulk of the paste, and consequently of the bread; but double the measure of it is required to serve as a complete substitute for barm.—See also *Cheese*, vol. i. p. 501. Willich's Encyclopædia.

Farther, the stalks of these roots, when cut in small pieces, afford a grateful food to cattle: the haulm has also been converted into paper; but it is more generally, and, we conceive, more profitably, employed for stable-litter; or,

when straw is scarce, instead of thatch for cottages.—Lastly, even the potatoe-apples may be usefully employed in domestic economy. In the *New Swedish Journal of Husbandry* for 1796, it is directed, that such apples should be collected while in a green and hard state : then well rinsed in cold water, and put for 48 hours into a strong filtrated brine. Next, they are to be placed for six or eight hours in a colander to drain, when they ought to be boiled in good vinegar, with the addition of some spice, till they acquire a certain degree of transparency, without becoming too soft. Thus prepared, they will afford a more palatable and less hurtful pickle than either olives or cucumbers.

Potatoes being of such extensive utility, various expedients have been contrived, with a view to preserve them. The most common method is, that of piling them up after they have become dry, in heaps resembling the roof of a barn ; covering them closely with straw, in such a manner as to meet in a point at the top ; and then slightly spreading them over with mould, which is beaten down with a spade. Some husbandmen make holes in the sides and top of the earth, in order that the the air, arising from the natural heat of the roots, may evaporate ; and, as soon as the steam ceases, the cavities are filled up, to prevent the effects of frost or rain. Another mode consists in depositing them in pits, and covering them with dry straw, or with the haulm of the roots ; by which management, if their surface be perfectly dry at the time they are put in, potatoes may long be preserved in a sound state.

A continental writer of doubtful authority informs us, that such roots may be easily preserved from the effects of the severest frost, by placing a vessel filled with cold water immediately over them : the fluid should be in portion to the quantity of the vegetables ; and, if frozen, it ought to be removed every morning and evening ; when a new supply must be instantly procured.

Mr. *Mellington's* second method of preserving these roots, is as follows : Five pounds of potatoes were properly cleaned and pounded in a mortar, without being previously peeled ; and then pressed in a small wine-press into a thick cake ; the whole being completed in the manner above described. This cake also was sweet and wholesome, but did not possess the clear whiteness of the former ; nor does it appear that such as were prepared according to the last process, will remain sweet for the same length of time as those consisting of peeled potatoes.—At all events, this contrivance deserves to be farther pursued and improved ; for, independently of the immediate advantages that will result from supplying mariners with vegetables, it is an object of the greatest importance, when considered as a means of preserving so useful, though perishable, an article for years ; and of laying up a store in plentiful seasons, against the time of scarcity.

Another mode of keeping potatoes, was lately and successfully tried, by the patriotic Bath and West of England Society; and which certainly is less complex than that before described. It consists simply in slicing potatoes, without taking off the rind or skin, and afterwards drying them in an oven or kiln. The roots thus prepared will remain sweet almost any length of time: the Society sent some to Jamaica in a barrel; which had been four years from Britain, and, on their return, were found not to be in the least degree affected.

PRICK-TIMBER.—See *Spindletree*.

PRICK-WOOD.—See *Wild Cornel-tree*.

PRIMROSE.—A genus of plants comprising 19 species; four of which are indigenous; the following are the principal:

1. The *Common Primrose*, perennial, grows in woods, hedges, thickets, and on heaths; it flowers in the months of April and May.—The blossoms of this species form an ingredient in pectoral teas; and the young leaves may be eaten in the spring among other culinary herbs.—Bees visit the odoriferous flowers, which are also said to impart briskness to wines. The roots, immersed in a cask of beer, or ale, render it much stronger.—*Linnaeus* asserts, that silk-worms may be feed with its laves.—Sheep and goats eat this plant; but cows do not relish it and it is wholly refused by horses and hogs.

2. See *Cowslip*.

3. The *Polyanthus*, a beautiful exotic species, which is cultivated in gardens, on account of its fragrance. It is one of the earliest spring flowers, and numerous varieties have been raised by gardeners; some of which are so greatly admired, as to be sold at one guinea per root. These are propagated from seed, which ought to be sown in December, in boxes of light rich earth, and slightly covered. When the young plants appear, they must be sheltered from the heat of the meridian sun; and, if the spring be dry, it will be requisite to water, and keep them in the shade.—In the month of May, they may be removed into rich shady borders, that have previously been manured with neat's-dung, where they are to be set at the distance of four inches, till they have taken root. Here they must be carefully weeded; and, towards the end of August, they should be finally transplanted into borders of rich, light earth, in rows of six inches apart, and occasionally watered. At an early period of the succeeding spring, the plants will flower; and, if intended to be preserved, it will be necessary to remove them, when their time of blowing is past, into another border of similar soil; where, being weeded, and sheltered during the winter, they will produce strong and beautiful flowers in the following spring.

PRIVET, PRIM OR PRINT.—An indigenous shrub, growing



on rocks in the most exposed situations towards the Western Sea, and flowering in the months of June and July.

The Privet may be easily propagated by seed, layers, or by cuttings: being a hardy plant of quick growth, it is usefully employed in making hedges. It attains the height of from ten to fifteen feet: is adorned with oblong leaves, and bears black berries containing a violet pulp, which ripens in October. Its juice, when mixed with a solution of any acid salt, affords a black; with Glauber's salt, and spirit of sal ammoniac, a red; with urine, a purplish; and, with vitriol of iron, a green colour. — On steeping these berries in a solution of salt of tartar, they yield a fine blue juice, the shade of which may be rendered still brighter by adding quick-lime. — *Weissmann*, the author of the "*Franconium Collections*" (in German, vol. i. p. 312), conjectures that the incomparably black ink of *Tragus*, was prepared from these berries, combined with oil of vitriol. — With the addition of alum, this fruit is said to impart to wool and silk a good and durable green colour; but, for this purpose, the berries should be gathered as soon as they are ripe. The purple colour upon cards is likewise prepared from their juice. — The kernels contained in these berries, produce by expression an excellent oil. The wood serves both as fuel, and for the smaller objects of turnery, but especially for pegs, as it is uncommonly firm. — The branches of this shrub are useful for wicker-work, as well as for the finer kinds of baskets, on account of their great flexibility. — As this shrub is much frequented by the Spanish fly, we conceive it might with advantage be cultivated in the southern counties of Britain, for the purpose of collecting that valuable insect. — Oxen, goats, and sheep, eat the plant; but it is refused by horses.

**PUFF-BALL.** — A genus of fungous plants, consisting of many species, 25 of which are indigenous: the principal part of these are the following:

1. The *Equestrian Puff-ball*, growing on the horns of cattle and sheep, but more commonly on the hoofs of horses which have been long exposed to, and softened by, the weather. — This plant is brownish-white: its stem is solid and cylindrical; the head globular, but rather concave below: — it is sometimes used as a styptic.

2. The *Common Puff-ball*; Bunt; Frog-cheese; or Puckefist; growing in pastures, and on road-sides; flowering in the month of August — When burnt, it emits narcotic fumes, on which account it is occasionally employed to take a hive, without destroying the bees. — This species, as well as the Orange-coloured Puff-ball is sometimes used as a styptic.

All these plants, while young, are of a roundish figure, and possess a soft fleshy substance, similar that of mushrooms; but,

when attaining to maturity, they become hollow, and are filled with an extremely subtle powder, that is very destructive to the eyes; cases having occurred of persons, who were, by coming in contact with it, deprived of their sight for a considerable time, and also affected with violent pain, and inflammation.

**PURSLANE**, the **COMMON**.—Is a tender exotic plant, which is annually raised either on a hot-bed, or warm border, for culinary purposes: it is propagated from seed, and forms an excellent ingredient in summer salads, but is improper in the winter, on account of its cold and moist nature.—The juice of this plant is sharp, and slightly saline, so that it produces laxative effects, when taken in sufficient quantity.—There are two varieties of purslane one having deep green, and the other, yellow leaves; both of which, however, are produced from the same seed.

**QUAKING-GRASS**.—A genus of plants, consisting of seven species, three of which are indigenous; and the principal of these is the Common Quaking-grass, Middle Quaking-grass, Cow-quakes, or Ladies-hair: it grows in fields and pastures, and flowers in the month of May or June.—This species is eaten by cows, sheep, and goats. It makes tolerable good hay; and, as it thrives on poor, wet lands, where other grasses will not vegetate, it deserves to be cultivated in marshy situations; though its stalk seldom exceeds twelve inches in height.

**QUEEN-OF-THE-MEADOWS**.—See *Meadow-Sweet*.

**QUICKEN-TREE, MOUNTAIN-ASH, OR ROAN-TREE**.—An indigenous shrub growing in woods and hedges; in mountainous and boggy situations; principally in Wales, Scotland, and the northern parts of England: it flowers in the month of May.

The mountain-ash may be reared either as a shrub, or as a large tree, according to the soil in which it is planted: it flourishes best on the sides of hills, in sheltered situations, and in fertile lands, where it attains a considerable size. It forms part of many ornamental plantations, on account of the beauty of its growth, flowers, and foliage, and particularly of its red berries; which, being produced in great abundance, afford a charming appearance from the end of autumn, till they are devoured by the birds, mice, &c. in the winter.—The wood is soft, tough, and durable, being advantageously converted into tables, spokes for wheels, chairs, &c. the roots are likewise very firm, and are formed into spoons, handles for knives, and similar utensils.

The berries of the mountain-ash, though generally devoured by black-birds and thrushes, may with more advantage be given to cattle, sheep, and especially to poultry, all of which animals eat them eagerly.—When infused in water, this fruit makes an acid liquor, resembling perry, that constitutes a principal beverage of the lower orders of the Welch people. In the island of Jura, the juice of the berries is employed as an acid for punch;

on distillation, they yield a considerable portion of ardent spirit, which posess a fine flavour; but, for this purpose, they ought to be previously frozen: we conceive, however, that these berries, when dried and pulverized, might, in times of scarcity, be more beneficially converted into a wholesome bread; though *Beckmann* informs us, that 12lbs. of such fruit yielded three quarts of brandy.—In tanning, the branches, leaves, and unripe fruit of this tree, have al been usefully employed, both by *Gleditsch* and *Bautsch*.

QUITCH-GRASS —See *Dog's-grass*.

RADISH.—A genus of plants comprihending eight species, of which the following are the principal;

1. The *White-flowered* or *Jointed Charlock*, or *Wild Radish*, an indigenous annual plant, which abounds in corn-fields, and flowers in the months of June and July.—It is eaten by horses, but refused by cows.—This species is a troublesome weed, and should be carefully extirpated, before it runs to seed: it vegetates with great luxuriance, during wet seasons, amongst barley: and has, in Sweden, occasioned violent convulsive affections in those who ate bread made of that grain.

2. The *Common* or *Garden Radish*, is an exotic species, originally from China, and which is cultivated for the table. There are several varieties of it, known under the names of the small-topped, deep-red, pale-red, or salmon, and the long-topped striped Radishes; all of which are annual plants; but the small-topped is generally preferred in the vicinity of London, on account of the little room which it occupies in the ground.

All these varieties are propagated from seed, which is sown at various times, from Christmas till May, to ensure a succession of radishes for the table; because they attain to perfection in the course of three months. The earlier crops ought to be sown in warm borders, sheltered from the severity of the winter; but, for the later ones, a moist soil, and an open situation, should be selected.

Radishes are esteemed aperient, attenuating, and anti-scorbutic:—when eaten in moderate quantities, they are in a certain measure salubrious to persons of strong habits; but are, in general, apt to produce a considerable degree of flatulency in those, whose stomachs are relaxed. The small-topped salad-radishes are greatly superior to the large root; as they are more easy of digestion, and tend to improve the appetite. No radishes, however, ought to be eaten when old, or after having been kept for some time; as they are then utterly indigestible, and render the breath extremely offensive.

RADDISH, THE HORSE.—See *Horse-radish*.

RAGWORT, THE COMMON, GROUNDSEL, SEGGRAM, OR ST. JAMES'S WORT.—A native perennial plant, growing in



meadows, pastures, and on road-sides ; and flowering from July to August.

Where this troublesome weed abounds, it is with great difficulty extirpated. The best method hitherto discovered, appears to be either that of plucking it up by the roots, after the ground has been moistened with showers ; or folding it closely with sheep in the winter season ; so that the heavy rains may contribute to its destruction. If the former plan be adopted, it is recommended to pile up the plants thus pulled and cleansed from earth ; to burn them ; and scatter the ashes on the ground ; or, if this cannot be conveniently done, to leave them to rot on, and manure, the soil ; as the rankness and stench of this weed prove it to be possessed of saline and fertilizing properties.—Farther, it is said to be more pernicious in meadow, than in pasture land ; for, in the latter it only tends to exhaust the soil ; while, in the former, it communicates to good hay a disagreeable effluvia, and deprives it of its sweet flavour.

If gathered before the flowers expand, and employed in a fresh state, the ragwort imparts to wood a fine green, though not permanent colour. But, if woollen cloth be previously boiled in alum-water, and then in a decoction of these flowers, a beautiful deep yellow shade will be produced.—*Dambourney* states that, by a decoction of the flowers and stalks while in blossom, the wool previously steeped in a solution of bismuth, acquired a very permanent olive-brown colour, displaying a beautiful golden shade.—When young, horses and cows eat this weed ; but, after attaining its full size, when the stems are a yard high, it is refused by every species of cattle.

RAMSONS.—See *Garlic* the broad-leaved.

RASH-BERRIES.—See *Great Bilberry*.

RASPBERRY, THE COMMON, BRAMBLE, FRAMBOISE HIND-BERRY, OR RASPI.—An indigenous plant growing in damp woods and hedges ; in thickets, and gravelly places near rivulets : it flowers in the months of May and June.—The fruit of this shrub, in a natural state, is fragrant, sub-acid, cooling, and very grateful : when used as an ingredient in sweet-meats, or fermented with sugar, and converted into wine, or vinegar, its flavour is greatly improved.—The white berries are sweeter than the red, but they are generally more contaminated by insects.—When eaten in any quantity, and occasionally held in the mouth, this fruit is said to dissolve tartarous concretions formed on the teeth ; though, for such purpose, it is supposed to be inferior to Strawberries.—The young and fresh leaves of the Common Raspberry are eagerly eaten by kids.

By cultivating this shrub for espaliers, the size and flavour of its fruit is susceptible of great improvement. *Bechstein*, therefore, prefers the rearing of it from seed, which affords finer berries

than may be obtained, either by setting divided roots, or cuttings. With such intention, we can, from experience, state the following exoric species, as being eminently adapted to the purpose :

1. The Virginian Raspberry-bush, with a prickly stem : its fruit is white, black, sometimes dark-red, uncommonly delicious, but smaller than that of the indigenous species : it thrives in the open air of our climate.

2. The Sweet-scented Raspberry, with a plain stalk, bearing many rose coloured flowers, and numerous palmated leaves. It attains the height of eight feet, and forms a spreading shrub, with close foliage. Its bright-red berries are of a peculiar flat shape, and have an agreeable sub-acid, vinous taste.

3. The Northern Raspberry, a native of the damp regions of Sweden, Russia, and Canada. The berry of this remarkable shrub is dark-red ; it exceeds in taste and flavour all the indigenous fruit of Europe. From its rich, saccharine juice, the natives of those countries prepare a most delicious wine : the berries are also preserved in sugar, or dried, and in that state exported to distant climates.

RAY-GRASS.—See *Darnel*, the Red.

RED MOROCCO.—See *Pheasant's-eye*.

REED.—A genus of plants, comprising ten species ; five being natives of Britain ; of which the following are the principal, namely :

1. The Sea-Reed.—See *Matweed*.

2. The *Common Reed*, grows in rivers, lakes, ditches, and fenny or marshy situations, to the height of seven or eight feet : it is perennial, and flowers in the month of July.—This species is employed for covering cottages and barns ; for which purpose it is superior to every other indigenous vegetable, being incomparably more neat and durable. By previously soaking the reeds in strong alum-water, such a roof may be rendered *fire-proof*. They are also manufactured into screens, for sheltering young plants from the cold winds ; and may be usefully employed for cane-bottomed chairs. Farther, the Common Reed makes excellent weaver's combs, and is generally nailed across the frame of wood-work, to serve as the foundation for plastered walls, pillars, &c.—From the dried roots of this plant, a very nutritive flour is easily obtained, which may be converted into wholesome and palatable bread. Its panicles are used, in Sweden, to impart a green colour to wool.

3. The *Wood Reed*, is perennial, grows in shady ditches, and moist situations, where it flowers in July.—This herb abounds particularly in the Isle of Ely, and is called by the inhabitants of the fens, Maiden-Hair :—it is manufactured into hassocks, or thick mats, for churches.

4. The *Small* or *Hedge-Reed*, likewise perennial ; grows in

moist shady hedges, and meadows ; where it flowers in the month of July. This species is remarkable for its beauty, and is an ornament to ditch-banks and hedges : it is rejected by cattle.—Prof. *Pallas* observes, that the panicles of the Small Reed, before the flower expands, impart the beautiful bright-green colour to wool, when boiled, with the addition of alum.

REED, the MACE.—See *Cat's-Tail*.

REST-HARROW, THE THORNY, CAMMOOK, PETTY-WHIN, OR GROUND-FURZE.—An indigenous perennial plant ; growing on barren pastures, hedge-banks, and paths ; it flowers in the month of July.—The young shoots of this plant may be boiled and eaten among culinary vegetables. *Dr. Withering* remarks, that a decoction of the roots has been recommended in cases of the stone and jaundice.—Cows and goats eat the Rest-harrow ; though sheep do not relish it, and it is refused by horses and hogs.

RHUBARB.—A genus of exotic plants, comprising seven species, of which the following are the principal :

1. The Common Rhubarb, a native of Thrace and Syria, which has long been cultivated in British gardens for the foot-stalks of the leaves, that are frequently used in pies and tarts. The root of this species is sometimes mistaken for the officinal rhubarb, from which it differs materially ; as the surface of the former is of a dusky colour, its texture is more porous or spongy, and it possesses greater astringency than the latter, but is less purgative, requiring two or three drams, instead of fifteen or twenty grains of the powder, for one dose.

2. The Palmated, True or Officinal Rhubarb, is a native of China and the East Indies, whence its culture has been introduced into Europe. It produces a thick fleshy root, externally yellowish-brown, but internally of a bright-yellow colour, streaked with red veins ; and it endures the severity of our climate.

The officinal rhubarb is raised from seed, which should be sown early in February, in light, sandy soils, that have been previously ploughed to a considerable depth, and manured with a compost, consisting of one part of rotten dung, one part of sifted coal-ashes, and two parts of slaked lime, thoroughly incorporated with a proper quantity of mud, or mire taken from a mill-pond.—This species is also propagated, by planting buds or eyes in land thus prepared ; which method is far superior to that before described : as a whole year is not only gained in the growth, but the plant is less liable to be injured by the depredations of vermin ; and, in the course of four or five years, the crowns of the rhubarb will produce tolerably good roots ; which, however, are neither so large nor so plentiful as those obtained from seed.



When the plants appear above ground, they will only require to be kept clear from all weeds; and, if the roots be covered with litter, or the earth be drawn around them, in the winter, they will vegetate with renewed vigour in the spring. Should they grow too closely together, it will be necessary to thin them, at the distance of five, or six feet: and, at the expiration of four years, the roots may be taken up for use; though their medicinal properties are supposed to increase, if they be suffered to remain in the earth for seven, eight, ten, or even twelve years.

The proper time for taking up the roots, in England, is from the middle of the summer to January; though they are sometimes dug out of the ground early in the spring; or in autumn, when the leaves are decayed. They are first washed clean, and the small fibres and external rind being pared or cut off, they are divided into pieces about one ounce in weight. In warm weather, they should be dried in the shade; but, if the season be cold or wet, it will be adviseable to evaporate their moisture gradually in a hot-house, or an oven of a moderate heat; because, if dried too speedily, they will contract into wrinkles, and, if too slowly, they become mouldy, and unfit for use. Lastly, a hole is perforated in the middle, and the roots are suspended on pack-thread to dry, so that none of the pieces come in contact with each other.

The rhubarb hitherto employed in medicine, is imported from Turkey, Russia, China, and the East Indies. The first sort is brought in roundish pieces, perforated in the centre; and which are externally of a yellow colour; but, on being cut, they appear variegated with bright-reddish streaks. The Chinese drug is imported in long pieces, which are harder and more compact than the Turkey Rhubarb; the former possessing a weaker aromatic flavour, is less esteemed: though, being more astringent, it is, for some purposes at least, equal to the latter.

Rhubarb is justly prized as a mild cathartic, and may be safely administered to children, invalids, and delicate women, in doses of from 10 to 20 grains, though, in irritable, hysterical, and phthisical habits, it is apt to occasion gripes, and to aggravate febrile symptoms: hence it ought never to be given in the first stage of dysentery, when this invaluable remedy, by premature use, may occasion the most violent pain and inflammation of the bowels; but, after the fever is suppressed, and the disease becomes a chronic diarrhoea, small doses of rhubarb will be attended with the best effects. As, however, this medicinal root has a tendency to occasion obstructions of the intestines after copious evacuations, it will, in most cases, be proper to combine it with cooling salts, in order to prevent costiveness: thus, 6 grains of the former, and one dram of either Glauber's salt, or cream of tartar, in a combined state, may be taken with advan-

age in the evening, and a similar dose in the morning. In short, rhubarb is the only purgative we possess, that is at the same time mildly astringent, diuretic, and does not relax the first passages.

Beside the utility of the roots, the seeds of such plants as are raised in England, possess a considerable portion of the medicinal properties of the former : its leaves impart an agreeable acidity to soups, similar to that of sorrel : a strong infusion in white wine, of pieces of the roots, that were not sufficiently thick for drying, has been given with great success in the dysenteries sometimes incident to cattle.—A marmalade is likewise prepared from the fresh stem, by stripping off the bark, and boiling the pulp with an equal quantity of honey or sugar. This, we understand, affords a mild and pleasant laxative, especially for children, to whom it is highly salubrious.—Lastly, Prof. PALLAS informs us, that M. SIEVERS, an apothecary, has discovered a resinous elastic gum, which, in the month of August, exuded from the leaves and flower-stalks of the Siberian rhubarb, on wounding them with a knife; and which bore perfect resemblance to the Caoutchouc, or India rubber.—By a decoction of this root in alum-water, the Kirghis impart a beautiful orange colour to their leather and wool : a similar tint may be given to cloth ; and, on adding green vitriol, a fine olive shade will be the result.—It has farther been conjectured, that, with a solution of tin, or bismuth, rhubarb would afford a beautiful red dye.

RIB-GRASS.—See Ribwort *Plantain*.

RICE.—A genus of plants consisting, according to *Linnaeus*, of only one species, viz. the Common Rice ; though later botanists enumerate three or four species, each of which is divided into two varieties. It is a native of Ethiopia, and the East Indies, where it is cultivated to a considerable extent ; as it constitutes the chief food of the inhabitants. They divide it into six varieties, which however, may be reduced to the following two varieties, namely, 1. *Mountain rice*, that grows on dry, elevated soil, manured with ashes ; but, as the crops often fail, it is of a higher price than the next sort, and little known in Europe ; tho' its grains are finer, whiter, more palatable, and may be longer preserved. Lastly, this variety has with success been cultivated in Tuscany. 2. *Marsh-rice*, which is the usual kind sown in low, swampy districts, that may be easily inundated by means of sluices. Of this productive grain, large quantities are annually imported into Britain, and other parts of Europe ; where it is highly esteemed for puddings and other culinary preparations. Being, however, too tender to be raised without the aid of artificial heat, in our climate, it can only be cultivated in hot-beds.—Some seeds of rice having, several years since, been sent to Ca-

rolina, its culture has so far succeeded, that it is now raised in that country in very considerable quantities.

Rice is, in the opinion of Dr. Cullen, preferable to all other grain, both for its abundant produce, and the large portion of nutriment it affords. On account of its cheapness, it deservedly forms a principal article of food, for the poorer classes of society. Hence, different methods have been devised, of cooking or dressing it in the most economical manner. Thus, if a quarter of a pound of rice be tied loosely in a cloth capable of holding five times that quantity, and then slowly boiled, it will produce above a pound of solid food; which, eaten with sugar, or boiled milk, forms a very palatable dish. And, if an egg, together with a quarter of a pint of milk, a small quantity of sugar, and grated nutmeg, be added, it will afford a more agreeable pudding than those prepared either of wheaten flour, or bread. One of the best preparations of this grain, however, especially for invalids, is its mucilage or jelly; which may be obtained by boiling two ounces of fine rice-flour with a quarter of a pound of lump sugar, in a pint of water, till it become an uniform gelatinous mass: on being strained through a cloth, and suffered to cool, it constitutes a salubrious and nourishing food.

With respect to the properties of rice, we shall only observe, that it is uncommonly nutritive, and may with great benefit be taken in diarrhœas, dysenteries, and similar disorders. But it should not be eaten too frequently, or in too large quantities, by languid or debilitated persons; as it is apt to produce in them flatulency and costiveness. Hence it will, in general, be advisable to eat this grain with the addition of a little cinnamon, caraway, or similar spices, to prevent these disagreeable effects: especially in those whose digestion is slow, or who are naturally of phlegmatic habits.

ROAN-TREE.—See *Quicken-tree*.

ROCKET.—An exotic species of the cabbage, which was formerly cultivated to a considerable extent in gardens.—It is divided into two varieties, known under the names of the Wild and Garden Rocket.—This plant is propagated from seed, which is sown early in the spring: it flowers in the month of June. When used as a principal ingredient in summer salads, it is, on account of its pungency, always eaten together with endive, purslane, or similar cooling vegetables.

With respect to its medicinal properties, the rocket is aperient, and expels flatulency. Its seeds are remarkably acrid, resembling mustard in flavour; for which spice they have often been used as a substitute.—According to *Bradley*, it is an useful vermifuge; and, when boiled, and applied externally, is said to remove spots from the face.—*Bohmer* informs us, that both the seeds and flowers of this herb may, in times of scarcity, be converted into bread.



ROSE.—A genus of shrubs, consisting of 25, but, according to some botanists, of 90, species, of which the following are the principal, though the first five only are indigenous, namely :

1. The *canina*.—See *Dog-rose*.
2. The *Burnet Rose*, *Pimpernel*, or *Scotch Rose*, grows on heaths, in thickets, hedges, and the borders of fields, in sandy situations : it flowers in the month of June or July.—This species, on account of its low growth, and the singular beauty of its diminutive leaves, which resemble the Upland Burnet, deserves to be cultivated in every garden. Its ripe fruit is eaten by children, and has a grateful, sub-acid taste. The juice, if diluted with water, dyes silk and muslin of a peach-colour ; and, with the addition of alum, it imparts a deep violet ; but it has very little effect either on wool or on linen.
3. The *White-flowered Dog-rose*, or *Corn Rose*, is found in hedges and heaths, particularly in the west of Yorkshire. It grows to the height of five or six feet, and has whitish blossoms, armed with prickles bowed downwards : the former appear in June, and are succeeded by red berries ; the beauty and fragrance of which have introduced it into our gardens.
4. The *Apple-rose*, grows six or eight feet high, in mountainous hedges and shady places, being very common in the north of England. Its large single red flowers blow in the month of June, and are succeeded by round prickly hips. In a cultivated state, this species often attains the height of ten feet, and its fruit the size of a crab : hence it deserves a place in every large garden, both for the singular beauty and also for the utility of its berries ; which has an agreeable acid pulp, that forms a proper ingredient in sweet-meats.
5. The *Sweet-Briar*, or *Eglantine*, abounds in hedges, where it is often five or six feet high : its small red flowers appear in the months of June and July.—There are numerous varieties of this species, the principal of which are known under the names of Common Single-flowered, Semi-double flowered, Blush-double flowered, and Yellow-flowered Roses.—The Sweet Briar is generally cultivated in gardens, chiefly in the borders of walks, and contiguously to dwelling-houses ; where its fragrant leaves diffuse a grateful odour.
6. The *French Rose*, an exotic species, which is commonly raised in Britain, on account of its beautiful red flowers. It has almost endless varieties, the enumeration of which would swell this article to a disproportionate length. We shall therefore only state the following, viz. the Common Red Rose, with large, spreading half-double, deep-red flowers—The Rose of the World, has large expanding, semi-double red flowers, beautifully variegated with white streaks.—The York and Lancaster Rose grows to the height of from six to eight feet ; and has elegantly

striped white and red flowers.—The Monthly Rose is from four to six feet high, with green prickly shoots, producing numerous party-coloured flowers from May to August, and a second time, if the season be mild, from September or October to December.

7. The *Hundred-leaved* or *Damask Rose*, is justly termed the Queen of Flowers, and has long been an ornament to British gardens, both for its elegance and fragrance. There are several varieties, known under the names of the Provence, Royal, Common Dutch Hundred-leaved, Blush Hundred-leaved Roses, &c. —The damask rose yields, on distillation, a small portion of butyrous oil, together with a water, which possess the odour and taste of the roses, and are greatly esteemed for the agreeable flavour they impart to culinary preparations, and also to cordials. They are strongly recommended by *Hoffman*, as being singularly efficacious in exciting the strength, invigorating the spirits, and mitigating pain. Beside these properties, a decoction of its leaves, after being distilled, has a mildly purgative quality; and which, on mixing it with sugar, forms an agreeably laxative syrup, and may with advantage be given to children.

All the species of roses are hardy, deciduous shrubs, and thrive in any soil or situation; though they flourish best in moist open lands. They are easily propagated by suckers and layers; which, when planted, requires only occasional pruning of their dead and superfluous branches, as well as the removal of their suckers, every autumn.

ROSEMARY.—An exotic plant, consisting of two varieties :

1. The Narrow-leaved Rosemary; and,

2 The Broad-leaved Rosemary.

Both these species are natives of the warmer climates of Europe, where they flourish on dry rocky soils, contiguous to the sea; and are also cultivated, on account of their medicinal properties, in the gardens of Britain; the climate of which they endure, provided they be planted on poor, dry, and gravelly lands.—They may be propagated either by cuttings, or by slips.

Rosemary possesses a fragrant odour, together with a pungent and somewhat bitter taste, resembling that of lavender. The leaves and young tops are the strongest: and from both, as well as the flowers, an essential oil is prepared: or, when distilled with spirit of wine, they afford the celebrated Hungary water. These liquid medicines are esteemed excellent cephalics in nervous and hysterical affections; and have been found eminently serviceable in apoplexies, palsies, and vertigoes; in which cases they are sparingly applied to the temples and forehead. According to some writers, they also afford considerable relief to persons troubled with a fetid breath, when employed in gargarisms and dentifrices, diluted with old or long kept spirit of scurvy-grass; while they are supposed to improve the organs of sight.

**ROSE-WORT, THE YELLOW, OR ROSE-ROOT.**—An indigenous plant, which grows on rocks, and in mountainous situations: it flowers in the months of June and July.—The perennial root of this herb is white, juicy, and possesses the fragrance of roses in so remarkable a degree, as to perfume the atmosphere, especially in Lapland. Its rosy colour is preserved in a dry state; hence it may be usefully employed for distilled waters. The Greenlanders eat the fresh root among culinary vegetables; but, when cultivated in a garden, its odoriferous properties are greatly diminished.—The plant is relished by goats and sheep, but rejected by cows and hogs.

**RUE.**—A genus of exotic plants, comprising seven species, the principal of which is the Common broad-leaved Garden Rue. It flowers in the month of June.

This plant is, for its medicinal properties, often cultivated in gardens. It has a strong odour, and a bitterish pungent taste. The leaves are very acrid: and, when in full vigour, are apt to raise blisters on handling, or applying them to the skin. *Boerhaave* recommends them as powerful stimulants, attenuants, and detergents: hence they are reputed to be of great service to persons of cold, phlegmatic habits; as they quicken the circulation; dissolve viscid or tenacious juices; remove obstructions; and promote the fluid secretions. “What medicine,” says he, “can be more efficacious for promoting sweat and perspiration; for the hysteric passion, of epilepsies; and for expelling poison?”—Nevertheless, the rue has lately been seldom prescribed, probably because many absurd and superstitious notions prevail respecting this herb, in domestic life.

**RUE, THE MEADOW.**—A genus of plants, comprising twenty three species, four of which only are indigenous: the principal of these, is the Common Meadow-rue, Spurious Rheubarb, or Rue-weed: it is perennial, grows in moist meadows, pastures, and on the banks of rivers; where it flowers in the month of June.

The root, branches, and leaves of this plant, impart to wool a yellow colour; which, on adding salammoniac, assumes a pale shade; and, on dropping oil of tarter into the decoction, acquires an orange colour; but, in order to give it lustre, the cloth should be immersed in alum-water; and the tint it self may be fixed, by dissolving cream of tarter in the last liquor. A cataplasm prepared of the leaves, is said to have afforded relief in the Sciatica, or hip Rheumatism.—From the yellow flowers, bees extract a large portion of honey.—Cows, horses, goats, and sheep, eat the Meadow-rue; but it is disliked by hogs.

**RUPTURE-WORT, THE SMOOTH.**—An indigenous perennial plant, which grows in gravelly soils, and flowers in the months of July and August.—This herb is, according to Dr. *Withering*, both saline and astringent; its expressed juice removes



specks from eyes; and, when taken internally, it is likewise said to increase the secretions by the kidneys.—*Bautsch* has employed it in tanning.—Cows and horses eat the plant; and, though rejected by hogs and goats, it is much relished by sheep.

RUSH.—A genus of plants, comprising 36 species, of which, according to Dr. *Withering* 17, but in the opinion of Dr. *Smith* 19, are indigenous: of these, the following are the principal; viz.

1. The *squarrosus*.—See *Moss-rush*.

2. The *Round-headed*, or *Cluster-flowered Rush*, grows in moist meadows and heaths, where it flowers in the month of July or August. It is employed by the lower classes to form rush-lights, for which purpose it is peeled in autumn on three sides, and dipped in melted tallow. The soil producing this plant, generally contains a stratum of peat.

3. The *Common* or *Soft Rush*, or *Scaves*, thrives in wet meadows and pastures; flowers from June to August.—It is eaten by horses and goats; is also used for rush-lights, like the preceding species; and sometimes manufactured into slight baskets.—The common rush is cut about Midsummer, in the vicinity of Farnham, and dried in the same manner as hay; after which it is formed into a kind of mow, and sheltered till the succeeding spring, when, on account of its toughness, it is usefully employed for bands, or ties, in fastening hops to the poles.—In a fresh state, it is farther converted into brooms, or besoms, for blacksmiths, and other artisans working in metals.

All the species of Rush grow in wet situations, and have therefore been sown on the banks of canals, in order to consolidate the earth. But, as they frequently abound on lands, that would otherwise be productive, different means have been adopted, with a view to extirpate them. This purpose has been attained by ploughing one furrow, and harrowing in a considerable quantity of dung; after which a crop of oats is taken. Another method consists in pulling them out by the roots in July, and exposing them for two or three weeks, till tolerably dry. They are then gradually burnt, and their ashes spread on the land, thus affording an excellent manure.—But, in order to prevent their future growth, the ground ought to be drained; and, if any rushes appear, they must be annually eradicated, and the soil properly rolled.

RUSH, THE FLOWERING, OR WATER GLADIOLE.—A native perennial plant, growing in slow streams and muddy ditches; flowering in the month of June or July.—This beautiful herb is a great ornament to the banks of our rivers marshy ditches; and it is refused by every species of cattle. From its strong leaves, the Dutch manufacture a kind of carpets and tapestry that are highly prized; and *Bohmer* observes, that they may also be converted into baskets, for packing fruit and other commodities.

**RUSH, THE HARE'S-TAIL, OR SINGLE-HEADED COTTON-GRASS**—A perennial plant, found in marshy heaths, on bogs and moors; principally in the northern counties of Britain.—The whole plant, previously to its flowering in June, is eaten with great avidity by sheep: and it is asserted by shepherds, that these animals will, after being reduced by hunger, recover more speedily, and thrive much better on the hare's-tail rush, than on turnips. In a ripe state, however, it is chiefly used for rushlights: the wool, or down growing on this plant, though short and brittle, may be applied to similar purposes with those of the Cotton-grass.

**RUSH-GRASS, THE PRICKLY, OR LONG-ROOTED.**—A native plant, which grows in marshes, ponds, and bogs, where it flowers in the months of July and August.—This species is injurious to cows. It frequently abounds in pools to such a degree, as to form floating islands by its interwoven roots: the stalks attain from two to six feet in height, and are principally employed as a substitute for straw in thatching houses; for which purpose they are better adapted.

**RYE.**—A genus of exotic plants, comprising five species, one of which only is raised in Britain, namely the Common Rye. It was supposed by *Linnaeus* to be a native of the Isle of Candia, whence it said to have been introduced into Britain; but it is doubtless a northern plant, as it thrives and flourishes most luxuriantly in cold climates.

The common rye is divided into two varieties, viz. the Spring, White, or Silvery Rye; and the Winter, or Black Rye. Both are propagated from seed in the proportion of 2 of 2½ Winchester bushels per acre, generally on poor, dry lime-stone, or sandy soils, where wheat does not thrive; and, if it be sown on such lands two or three successive years, it will at the end of that period ripen a month earlier than such as has, for a long series of years, been raised from strong, cold ground.

The proper season for committing the seed to the earth, depends greatly on the nature of the rye: that for spring or white grain, is from February to March; as that for the black or winter rye, is from the middle of September to the latter end of October, in South Britain. Both these varieties, however, are advantageously sown together with wheat, at the rate of one peck of rye with one bushel of wheat: the seed of the former is also harrowed in among a thin crop of turnips, and both are fed off with sheep.

Formerly, considerable quantities of rye-meal were converted into bread; sometimes being kneaded alone, and occasionally with a small portion of wheaten flour. It is, however, seldom used at present in this country, on account of its being subject especially during hot summers that succeed a wet spring) to a

disease, known in France under the name of ergot; but which is called in England, horned rye, spur, or horn-seed. The grain thus affected grows out in large horns, containing a mixture of black and white farinaceous powder; and is said to appear as if it were pierced by insects, which are conjectured to cause the disease. By the use of such damaged grain, the poorer classes of people, both in France and England, have often been afflicted with fatal disorders, accompanied with extreme debility and gangrene, or mortification of the extremities. Horned rye is equally fatal to brutes: sheep, dogs, swine, deer; nay, geese, ducks, and other poultry, that were fed with it, by way of experiment, became violently convulsed, and died in great agonies. So deleterious; indeed, are its effects, that it has even destroyed the flies which settled upon it.

But though rye, when diseased, be thus prejudicial to men and animals, yet in a sound state it is an excellent grain for bread-flour, and often yields abundant crops. It may also be advantageously fed off early in the spring by sheep, and somewhat later with horses and cows; or, it may be mown and given to the latter in the stables.—The straw of this grain is excellent for thatching, and is also used by brick-makers, collar-manufacturers, and for packing. Farther, we are informed by Mr. Marshall, that in the county of York the farmers always sow a small quantity of rye with their wheat, which they believe is thus preserved from the injurious disease, known under the name of Mildew. Lastly, every kind of poultry have such an antipathy to this grain, that they avoid the place where it vegetates: hence it has been advantageously sown in head-ridges, around farm-houses, and yards, as a kind of protection to other grain.

With respect to its physical properties, we shall only remark, that pure and sound rye, though less nutritive than wheat in a similar condition, affords good bread: which, to persons of a sedentary life, is attended with the beneficial effect of preventing costiveness, or obstipation of the bowels.

RYE, THE WILD.—See *Barley*, the Wall.

RYE-GRASS.—See *Darnel*, the Red.

SAFFRON.—A genus of plants consisting of seven species, two of which are indigenous: namely,

1. The *Common*, or *Autumnal Saffron*, thrives in meadows and pastures; flowers in August and September. It is cultivated by planting out the roots in July, at the distance of five inches apart, and two inches deep, in a good, dry soil, that has previously been well ploughed, and manured with rotten dung.

In the beginning of September, the ground ought to be hoed, and the weeds carefully eradicated; as the growth of the saffron would otherwise be impeded. A short time after, the flowers will appear for several weeks; and they should be gathered, that



is, the stigmata or fleshy summits of the pistils picked off, every morning in succession, before they are fully blown. Next, these tender filaments are to be gradually dried in a kiln, and preserved for use.—A field of saffron will continue to be productive for three or four years, yielding progressively more numerous and larger flowers, as well as increase of bulbous roots; which, after that period, may be advantageously transplanted to another situation.

Saffron is remarkably fragrant, and is highly esteemed; as it exhilarates the spirits, when taken in small doses: but, if used in too large portions, it produces immoderate mirth, and all the consequences resulting from the abuse of spirituous liquors. It imparts a beautiful colour to water, wine, or spirits, to which it communicates its virtues.

The drug was formerly considered an excellent remedy in hysteric depressions, originating from spasms, or from obstructions of the usual evacuations; but, in modern practice, it is seldom employed, though it forms an ingredient in several medicinal preparations: The best saffron is that raised in England, which may be known by the breadth of its blades: it ought to be of a deep red or orange colour; fresh and tough, though neither too dry nor too moist; and of a strong, but pleasant aromatic odour.—It deserves to be more generally known, that mercenary dealers often adulterate this valuable spice with safflower, or with the fibrils of dried beef: the former practice, which is more common and less troublesome, cannot be easily detected; but the latter species of fraud may be ascertained by infusing a few threads of suspected saffron in a wine glassful of simple water; and if, after standing 24 hours, the liquor acquire only a pale-yellow tint, instead of a bright-red hue, it may be concluded that it is not genuine.

2. The *Spring* or *Garden Crocus*, is found in meadows, chiefly in the county of Nottingham: it flowers in the month of March.—This species is propagated by seeds in gardens, for the beauty of its flowers, which form a principal ornament in vernal nosegays.

SAFFRON, THE MEADOW.—See *Meadow-Saffron*.

SAGE.—A genus of plants comprising 60 species; of which the following are the principal, viz.

1. The *Pratensis*; and,
2. The *Verbenacca*.—See *Clary*.
3. The *Common Large Sage*, is a native of the southern parts of Europe, and cultivated in British gardens, for culinary purposes.—There are several varieties of this species, namely the common green sage, the wormwood sage; the green and red sage, both with variegated leaves; and a peculiar kind with red or blackish leaves; the last of which is most commonly cultivated, together

with the wormwood-sage.—Their flowers furnish bees with honey and wax; the whole plant is exceedingly grateful to sheep, and imparts a delicate flavour to the flesh of those animals.

4. The *Balsamæ Sage*, which is preferred to all the other species for herb-tea.

All the different kinds of sage may be propagated by seeds; but, as some of these useful plants do not attain to perfection in this country, the more eligible method of raising them, is generally by slips.

In a medicinal view, sage moderately warms and strengthens the alimentary canal: hence, in cold phlegmatic habits, it excites appetite, and may be of service to persons labouring under nervous debility. The best method of taking it, is by an infusion of the dry leaves used as common tea; or a tincture, or extract, made with rectified spirit, and given in proper doses. These preparations contain the whole virtues of the sage, while the distilled water and essential oil possess only the warmth and aromatic quality, without any of its bitterness or astringency. Watery infusions of the leaves, with addition of lemon-juice, form an useful drink in febrile disorders, and are very grateful to the palate.

**SAINTFOIN, THE COMMON, OR COCK'S-HEAD.**—A native perennial plant, which grows in meadows and pastures, on chalky soils, where it flowers in the months of June and July. There are several varieties, known under the names of White-flowered, Blue-flowered, Purple-flowered, Striped-flowered, and Long-leaved Hoary Saintfoin.

This plant thrives most luxuriantly on dry and chalky lands, in high and exposed situations, so that its culture would chiefly benefit the Northern parts of Britain; for it requires no rich land, but a clayey and gravelly bottom.—It is propagated from seed; the best of which has a bright husk; the kernel being plump, externally of a grey or blueish cast, but when cut, internally of a fresh greenish colour.

The proper season for sowing the Cock's-head, is in the month of March; the quantity of seed varies, from one to four, and even eight bushels per acre, broad-cast; though the most economical method is that of drilling it in rows two feet asunder; by which half a bushel is sufficient to stock an acre. This vegetable is, however, occasionally sown together with clover or with barley, in the proportion of from one to three bushels per acre, to which 5lbs. of trefoil are generally added; as the latter prevents the growth of weeds, till the saintfoin has taken deep root.

This species of clover is one of the most promising plants, which might be cultivated in Britain; and it is much to be regretted, that its introduction should be almost totally neglected by so many tenants of proprietors of poor, shallow, and stony soils;

as it will produce, on their worst lands, at least one ton of hay, together with a considerable after-growth for grazing cattle. Saintfoin, indeed, will yield abundant crops for ten or fifteen years, at the expiration of which, it will afford an excellent pasture for sheep, during several succeeding years; and, if the soil be rich, it will produce two crops annually; except, however, in the first two or three years, when the growth seldom exceeds one load, or half a crop per acre: but no cattle should be suffered to graze on it, for the first winter; as their feet will injure it: nor should any sheep be fed on it during the second summer, because they are too apt to bite the crowns or tops of the roots, the growth of which would thus be immediately checked.

At the expiration of seven or eight years, it will be proper to manure the soil with dung; and, if it be sandy, with marle. Should the first season for mowing prove wet, the saintfoin must be left for seed; it ought not, however, to be cut before it is in full bloom; as the quality of the hay would thus be materially injured; but, if it be given to cattle, while green, it will produce a second crop in the same year. Whether it be consumed in a fresh or dry state, it is equally useful for feeding cattle, and is said to fatten sheep more speedily than any other vegetable. It is farther believed to increase the quantity and improve the quality of milk in cows, the cream of which becomes not only richer, but the butter acquires a better colour, and more delicious flavour. Lastly, saintfoin is an uncommonly strengthening provender for horses, which, when fed with it, requires no oats.

**SALLOW, OR WITHE.**—Is an indigenous species of the willow, which, though it will vegetate in damp situations, requires a drier ground than any other of that genus. In a good soil, it attains the height of thirty feet.—The tender shoots and suckers of this tree are on account of their flexible nature, useful for baskets and wicker-work.—In Sweden, the young rind is not only employed with advantage by tanners, but also by dyers, for striking a deep black on linen-yarn, in combination with alder bark. The former has likewise been profitably converted into Paper.

**SALLOW-THORN.**—See *Buck-thorn*, the Sea.

**SALTWORT, OR GLASSWORT.**—A genus of plants comprising nine species, of which two are indigenous: namely,

1. The *Prickly Saltwort*, or *Kelpwort*, grows frequently on sandy sea-shores, and flowers in the months of July and August.

2. The *Shrubby Saltwort*, or *Shrub Stone-Crop*, thrives likewise on sandy sea-shores, and flowers in the month of August.

• Both these species are used for making the salt known under the name of kali, considerable quantities of which are employed in the manufacture of glass.—The process is as follows: A trench being dug near the sea, laths are placed across it, on



which the herb is laid in heaps ; a fire is then kindled below, and the liquor extracted from the plants, drops to the bottom, where it ultimately acquires a thick consistence, when it becomes kali ; which is partly of a black, and partly ash-colour ; very sharp and corrosive : being of a strong saline taste. When thoroughly hardened, it resembles solid stone, and in that state is fit for use.

**SALTWORT, THE JOINTED.**—A genus of plants, comprising nine species ; one of which only, according to Dr. *Withering*, but, in the opinion of Dr. *Smith*, two, are natives of Britain, viz.

1. The *Jointed Glasswort*, *Sea-grass*, or *Marsh Samphire*, is very common on sea-shores, and flowers in the mouths of August and September.

2. The *Shrubby Samphire*, grows likewise on sea-shores and the sides of roads, where it flowers from August to September.

The ashes of both these species yield fossil alkali, which is in great request for manufacturing soap and glass. It is chiefly prepared on the Mediterranean coast, and is called soda ; the best of which is imported from Spain, under the name of barilla. —When young and green, this vegetable, steeped in vinegar, with a due portion of salt, affords a pickle very little inferior to samphire.—The whole plant has a saline taste, and is devoured with avidity by all kinds of cattle, being a very wholesome food, especially for sheep.

**SALTWORT, THE BLACK OR SEA MILKWORT.**—A native perennial plant, which grows in salt-marshes, and flowers in the months of June and July.—This saline plant is often used as a pickle, and may likewise be eaten as salad, or cooking among other vegetables.—It is also much relished by cows ; and *Bechstein* observes, that it uncommonly increases their milk ; on which account it merits to be cultivated in congenial soils.

**SAMPHIRE, THE ROCK OR SEA SAMPHIRE.**—A perennial plant, growing on the British Sea-coasts, among gravel and rocks, where it flowers in the month of August.—This vegetable is much relished as a pickle, and likewise employed as a pot-herb.—Dr. *Withering* informs us, that sheep and cows eat it with avidity, and have, in consequence, been observed to grow exceedingly fat.

**SANDWORT.**—A genus of plants, comprising 43 species, 7 of which, according to Dr. *Withering*, but with Dr. *Smith* 10, are indigenous : the principal of these is the *Sea-spurcy Sandwort*, which is perennial, grows in salt-marshes and on the sea-coast, where it flowers from May till October.—This succulent vegetable bears great resemblance to samphire, and considerable quantities of it are actually pickled, and sold for that plant.

**SANICLE, THE YORKSHIRE.**—See *Butter-wort*.

**SATYRION, OR LIAZARD-FLOWER.**—A native perennial plant, growing in chalky meadows and pastures ; flowering in

the months of June and July.—Its leaves are very large, and the whole plant has a rank, disagreeable odour: nevertheless, it is eagerly eaten by cattle, and is said, in a remarkable degree, to increase the milk of cows.

SAUCE.—ALONE.—See *Garlic-Hedge-Mustard*.

SAVIN.—An exotic evergreen shrub, which has small, rather prickly leaves, and produces blue berries, only after it has arrived at a considerable age. Its stem attains the height of seven feet, and is apt to grow in a reclining posture: the wood is internally of a beautiful reddish shade, resembling that of mahogany.

The savin is of slow growth, but may be easily propagated, by layers, by cuttings, or by the berries: if the latter can be procured, they should be sown in beds of common light earth, and in the spring or autumn, the young plants are to be set out in nursery-rows, two feet asunder. In October, November, or early in April following, they must be carefully transplanted to the place of their destination.

The leaves of savin possess a bitter, acrid taste; and their smell is so powerful and disagreeable that it expels moths and similar vermin. When distilled with water, these leaves yield an uncommonly large proportion of essential oil.

with respect to its medicinal properties, savin is warm, stimulant, and aperient, being calculated for promoting sweat, urine, and all the glandular secretions.—Hence a conserve made of its tops and leaves has afforded permanent relief in obstinate gouty and rhumatic cases, if taken for several months, nay, for a whole year, in small doses of a tea-spoonful or two, every morning and evening: few patients, however, will submit to swallow this nauseous drug; though it requires only a certain degree of resolution at the commencement.—The oil distilled from this shrub is one of the most violent emmenagogues, and ought therefore to be used with the greatest caution in obstructions of the uterus, or other viscera proceeding from laxity or weakness. No drug-gist should sell this preparation to strangers.

An essential oil and watery extract of the savin are also kept in the shops.

SAVORY.—A genus of exotic plants, consisting of nine species, of which the following are the principal, namely:

1. The Summer Savory, an annual herb, propagated from seed, which ought to be sown early in August on beds of light earth:—if the plants are intended so remain in the same situation, the seed should be sparingly scattered; but, if they are designed to be transplanted, it may be sown more closely.

2. The Winter Savory, is a perennial vegetable, likewise obtained from seed, which requires only a poor, dry soil, where the plants will continue for many years, uninjured by the severest winters. As, however, the shoots will not be well furnished

with leaves, when several years old, it will be proper to raise an annual stock of young plants.

Both the summer and winter savory have long been cultivated in the British gardens, for culinary, and medicinal purposes. Their warm aromatic, and pungent leaves, are much esteemed in salads: formerly, they were employed medicinally, with a view to attenuate viscid humours, to dispel flatulency, and to increase the appetite.—According to Prof. *Bradley*, this herb, when dry, and put into a bed, possesses the remarkable property of expelling fleas.

**SAW-WORT.**—A genus of plants, comprising 18 species; two of which only, according to Dr. *Smith*, are indigenous: namely:

1. The *Common Saw-wort*, is perennial: grows in woods and on pastures, where it flowers in the month July.—This plant is employed by dyers, to impart a yellow colour; but, being inferior to the Dyers-weed, its use is chiefly confined to the coarser woollen cloths, and as an ingredient in other dyeing drugs.—In combination with indigo, the Common Saw-wort strikes a permanent green colour. Its leaves readily yield a brownish-yellow decoction, which, on diluting it with water, changes to a brighter tinge; and, by adding a solution of pure pot-ash, acquires a darker shade: but, on dropping it a little of the spirit of sal-ammoniac, becomes reddish-brown; which may again be rendered of a golden tint, by the addition of pure water. On the whole, *Porner* observes, that alum and gypsum appear to be best calculated for extracting a fine yellow colour from this plant; which the Germans industriously cultivate.—Goats eat this species, but horses do not relish it; and it is totally refused by sheep, hogs, and cows.

2. The *Corn-Saw-wort*, or *Way-thistle*, thrives in corn-fields and on road-sides: it flowers in the month of July; and is often a very troublesome weed.—When burnt, the ashes of this plant yield a very pure vegetable alkali, or pot-ash; on which account it deserves to be propagated in the vicinity of glass-houses and soap manufactories.—Neither cows, horses, nor swine eat this vegetable; but it is relished by goats: its young and tender tops are occasionally devoured by horses.—While young, the *Way-thistle* is eagerly consumed by sheep: when bruised, and mixed with bran, this weed affords excellent food for every species of cattle. Its seeds are enveloped in large downy crowns; which, according to *Bechstein*, may be advantageously combined with wool, and thus converted into blankets and coarse cloth; nor are they less useful for stuffing pillows, bolsters, and mattresses.

**SAXIFRAGE, THE COMMON OR WHITE.**—An indigenous plant, growing on dry meadows and pastures, where in flowers



in the month of April or May. Its perennial root consists of several small bulbs, which are externally of a reddish colour, and from which arise long hairy foot-stilks, that are furnished with downey, kidney-shaped leaves.—The stems are thick, hairy towards the bottom, somewhat branched, and from 12 to 24 inches in height, having a few small leaves, which sit closely to the stalk. The flowers grow in small clusters, and are furnished with five white petals, that inclose ten stamina and two styles; the seeds are very numerous, small, and black.

According to *Linnaeus*, this plant possesses an acrid, pungent taste, which, however, is not confirmed by the accounts of later botanists: on the contrary, the grains, or tubercles forming the root, and also the leaves, are equally devoid of any *sensible* quality.

The Common White Saxifrage was formerly in great request, for its supposed efficacy in curing nephritic and gravelly complaints: at present, it is totally disregarded; and we should not have described the specific characters of this plant, if it were not uniformly discovered in soils, beneath which a bed of Gravel will be found, at no considerable depth. Hence it affords a certain guide, by which surveyors and landed proprietors may be directed in digging for that useful fossil, especially in places where other stones cannot be easily procured, for repairing public roads.

SAXIFRAGE, THE COMMON, GREAT, AND DWARF BURNET.—See *Anise*.

SCABIOUS.—A genus of plants comprising 42 species, 3 of which are indigenous and perennial, namely:

1. The *Devil's-bit Scabious*, grows in fields and pastures, where it flowers from June till August.—According to *Linnaeus*, the dried leaves of this plant are employed to impart to wool a yellow or green colour; the latter of which, however, is more completely extracted from the blossoms, and may be communicated even to linen.—A decoction of this herb is likewise of service, when applied, by way of fomentation, to the hoofs of horses injured by nails.—Cattle derive nourishing food from this vegetable.

2. The *Field Scabious*, grows in similar places, and flowers in the month of July or August.—This herb is, according to *Dr. Withering*, slightly astringent, bitter, and saponaceous; it is eaten by sheep and goats, but neither relished by horses nor cows.—From the *Field Scabious*, a green dye is likewise obtained for wool; and its reddish-blue flowers are fondly visited by bees.

3. The *Small Scabious*, grows on dry hilly pastures, and blows from June to September.—The bluish-lilac flowers of this species are also very grateful to bees; and the whole plant is eaten by horses, goats, and especially by sheep.

SCORZONERA, THE COMMON.—An exotic plant, which has long been raised in British gardens for culinary purposes, and especially as an ingredient in soups, on account of its palatable and nourishing roots.—It is propagated by seeds: the plants should be carefully thinned, and cleared from all weeds; for, otherwise, they will never attain any considerable size.

The root of the scorzonera ought, before it is boiled, to be deprived of its black rind, and immersed in cold water for half an hour: thus, its flatulent effects will be greatly prevented, and it will also become less bitter.

SCOTCH-FIR.—See *Fir-tree*.

SCROOBY-GRASS.—See *Scurvy-grass*, the Common.

SCULL-CAP, THE COMMON, OR BLUE, OR HOODED WILLOW-HERB.—A native perennial plant, growing on the banks of rivers, and the borders of ponds; flowering in the month of July or August.—Its square stem attains the height of two feet: the herb is eaten by cows, sheep and goats; but is refused by horses and hogs.—*Cartheuser*, a German writer, informs us, that the whole of this astringent vegetable may be employed for dyeing black, with the addition of green vitriol.

SCURVEY-GRASS.—A genus of plants comprising eight species, five of which are indigenous; and the principal of these are:

1. The *Armoracia*.—See *Horse-Radish*.

2. The *Common Scurvy-grass*, or *Sernby-grass*; growing on sea-shores, and in mountaineous situations, where it flowers in the months of April and May.—When cultivated in gardens, this maritime plant retains its properties, without any sensible change. It possesses a considerable degree of acrimony, which resides in a very subtle essential oil: and, as an antiscorbutic, its effects are sufficiently ascertained. In the pituitous asthma, and chronic rheumatism, the scurvy-grass is a powerful remedy. It is likewise a pungent stimulating medicine, which may be advantageously employed for promoting the fluid secretions.—A distilled water, and a conserve, are prepared from its leaves; and the expressed juice is prescribed with that of oranges, among other antiscorbutics.—It may also be used as a salad.—Cows eat this plant, but it is refused by horses, goats, and sheep.

3. The *English Scurvy-grass*, or *Spoonwort*, grows on sea-shores, in muddy soils, or salt-marshes, and flowers in the month of May.—This species possesses similar properties with the preceding, but in an inferior degree.

4. The *Common Wort-cress*, or *Swine's-cress*, thrives in corn-fields, on rubbish, and road-sides; blows from June till August.—It is a palatable salad-herb, on which account the Germans cultivate it in gardens.

Those different species of scurvy-grass may be propagated by seeds, which are to be sown in July, in a moist soil; because, if committed to the ground in the spring, they seldom prosper:—when the young plants appear, they should be thinned, so as to leave them at the distance of about six inches apart. Those of a proper size may then be transplanted; and, in the succeeding spring, they will be fit for use; the remaining plants may be left for seed, which will attain to maturity in the month of June.

SCURVY-GRASS, THE SCOTTISH.—See *Bindweed the Sea*.

SEA-ANEMONE.—See *Animal Flower*.

SEA-CABBAGE, OR SEA-COLEWORT.—See *Cabbage*, the Common.

SEA-CUSHION, OR SEA GILLIFLOWER.—See *Thrift*, the Common.

SEA-GRASS.—See *Saltwort the Jointed*

SEA-LAVENDER.—See *Lavender-thrift*.

SEA-PARSLEY.—See *Scottish Lovage*.

SEA-PARSNIP.—See *Samphire*, the Prickly.

SEA-WRACK.—A genus of vegetables, comprehending 145 species, 85 of which grow on the British coasts: of these we shall state the following as the principal:

1. The *Serrated Sea-wrack*, is perennial, growing to the height of about two feet, and varying from a green to a yellowish or olive colour.—It is employed by the Dutch for covering or picking lobsters and crabs, that are to be conveyed to a considerable distance; because it keeps them alive much longer than any other species of this plant; nor does it easily ferment, or become putrid.

2. The *Common Sea-wrack*, or *Sea-waure*, is perennial, and grows to the height of one foot; producing its fructified parts in the months of July and August.—It is an excellent manure; for, being strongly impregnated with saline particles, these are gradually imparted to the ground on which the plant is spread, and thus fertilize it in a remarkable degree. Indeed, if land be properly dressed with this maritime vegetable, it is asserted, that its efficacy will continue unexhausted, for seven or eight years; an advantage which dung does not possess, as it requires to be renewed every second or third year.

Beside its utility as a manure, the *Sea-waure* serves in Jura, Skye, and other Hebride islands, as a winter food for cattle, which regularly frequent the shores for it, after the tide has ebbed. The inhabitants of these isles, also, dry their cheese without using any salt, by covering it with the ashes of this plant; which abound with saline particles to such a degree, that they produce one half of their weight in fixed alkaline salts.

Farther, we are informed by *Linnaeus*, that the inhabitants of Gothland boil the Common *Sea-wrack* together with a little



coarse meal, by which they prepare a kind of wash for their hogs; and that the poorer classes, in Scan'ia, not only thaten their cottages with it, but also employ it as fuel. The most profitable use of this plant, however, is that of making kelp, or pot-ash, which affords employment to many industrious families. So lucrative and highly esteemed is this plant, that the natives of the Western Isles have even rolled large masses of stone and rock into the sea; with a view to promote and extend its growth.

With respect to its medicinal properties, also, the Sea-waure deserves particular notice.—Dr. *Russell* recommends the saponaceous liquor found in the vesicles or bladders, that abound beneath the leaves of this plant, as a powerful resolvent in dispersing scrophulen and scorbutic tumors of the glands. He directs the patient to rub such swellings with these bladders, having previously bruised them in his hand, till the part be thoroughly penetrated with the mucus; after which they are to be washed with sea-water. Another method of employing the common sea-wrack, is by infusing 2lbs. of the vesicles above mentioned (which ought to be gathered in July, when they abound with viscid juice) in a glass vessel containing one quart of sea-water, for the space of fifteen days; at the expiration of which, the liquor will acquire the consistence of honey. It is next to be strained through a linen cloth: the tumours must be daily rubbed, and then cleansed in the manner already directed. By this treatment, he observes, not only scorbutic and scrophulous indurations, but even scirrhus swellings in the breasts of females, have been successfully discussed. Lastly, by calcining this vegetable in the open air, Dr. *Russell* obtained a very black saline powder, by him called vegetable æthiops; and which has been highly extolled both as a resolvent, and also as a dentrifice, for correcting the scorbutic laxity of the gums, and removing all foul matters from the teeth.

3. The *Palmated Sea-wrack*, *Dills*, *Dulls*, *Dullesh*, or *Dulse*, abounds on the coast of Scotland, on those of the contiguous islands, and on the shores of Northumberland. Its substance is membranous, pellucid, and thin; of a greenish or reddish colour; its height varies from five to six, and sometimes to twelve inches.—This species, after being soaked in fresh water, is eaten either boiled or dried; in which latter state, it acquires a flavour, somewhat resembling that of violets; and, according to *Bechstein*, the sweetness of sugar:—yet, unless it be dried in close vessels, no saccharine but saline particles will appear on its surface; because the former are dissipated in the open air; a remark for which we are indebted to *Olaffen*, the Icelandic traveller.—The dulse is sold in a very dry state, in the streets of Dublin; and Dr. *Rutty* observes, that it is supposed to sweeten the breath, and to destroy worms.—In the Isle of Skye, this plant is occasionally boiled in water, with a little butter, and administered in fevers,

with a view to promote perspiration ; though, in this form, it is often attended with purgative effects.

4. The *Fringed Sea-wrack*, abounds on rocks and stones, on the British coast ; where it grows from four to five inches high ; consists of a membranous, pellucid substance ; and is of a red colour. It is eaten both in Britain and Ireland, like the preceding species.

5. The *Indented or Jagged Sea-wrack*, or *Pepper-dilse*, is also met with abundantly on the rocks of Britain, which are covered by the tides. It attains two or three inches in height ; and is of a yellowish-olive colour, frequently tinged with a reddish hue.—It is likewise eaten both in Scotland and Ireland.

6. The *Esculent Sea-wrack*, *Bladder-locks*, or *Tangle*, is common on the rocks contiguous to the shores of Cumberland and Scotland ; where it grows from five to ten yards in length, and one foot wide, being of an olive or green colour.—This species furnishes a grateful food for cattle ; and its stalk, when boiled, affords a culinary dish in Scotland, as well as in some parts of England : the proper season for gathering this vegetable is the month of September, in which it is found in the greatest perfection.—The Esculent Sea-wrack has, farther, been recommended for restoring the natural appetite in the disorder, termed *pica*, or longing.

7. The *Sweet Sea-wrack*, or *Sea-belt*, abounds on the sea-shores. Its stem is from 2 to 12 inches in height, of an oval form, a leathery consistence, and of a tawney-green colour. If it be washed in the spring, and suspended to dry, a sweet saccharine matter will exude from its extremities ; though not in such quantity as from the *Palmated Sea-wrack*.—The sea-belt is eaten, both when taken fresh out of the sea, and also boiled as a pot-herb.

SAGE.—A genus of perennial plants, comprehending 117 species, 45 of which are indigenous : the most remarkable of these are,

1. The *Sea Seg*, which commonly thrives in the loose and moveable sands on the shores, and flowers in the month of June.—Its creeping roots contain a large proportion of farinaceous particles ; from which, in times of scarcity, wholesome bread has been prepared : early in the spring, they are said to possess medicinal properties, not inferior to those of the *Sarsaparilla*.

2. The *Great Seg*, abounds in marshes, and on the banks of rivers ; it flowers in May or June.—Although this is a pernicious weed in meadows, yet the whole herb may be usefully employed as a substitute for straw, in packing goods liable to be injured by carriage ; for drying up swamps or morasses ; for the erection of dams ; and the sward for fuel, instead of peat : its seeds are likewise of service in feeding aquatic birds.

3. The *Slender-spiked Seg*, grows at the sides of rivers, ponds, and ditches, as likewise in meadows; it flowers towards the end of April or May. This species is divided into two varieties, namely, the Black Seg, and the Red Seg, from the respective colours of their flowers. Both are very noxious weeds; as they not only stifle the growth of other grasses, but also afford food to insects, which are detrimental to the health of cattle.—The only economical purpose to which the slender spiked seg may be rendered subservient, is that of being mixed, and cut, together with straw for feeding horses in the winter.

SEGGRAM.—See *Ragwort*, the Common.

SELF-HEAL, THE COMMON.—A native perennial plant, growing in meadows and pastures; bearing purplish flowers in the month of August.—It possesses an austere taste; and, though exploded from the list of healing plants, it may be eaten as salad, while young, and also boiled like spinach.—Cattle, in general, relish this herb; and bees collect honey from its flowers.

SENNA.—An exotic shrub cultivated in Persia, Syria, and Arabia, whence its dried leaves are imported. They are of a yellowish-green colour, have a faint, though not unpleasant smell; and a sub-acrid, bitterish, nauseous taste.—There is a spurious sort of this drug obtained from Tripoli, and other places; but the fraud may be easily detected; as the latter is of a fresh green colour, without any yellow shade.

Senna is an useful purgative, operating mildly, though effectually; and at the same time promoting the secretion of urine. Its ill flavour may be corrected, by slightly boiling the leaves in water; and, being apt to occasion gripings, it should be conjoined with any proper aromatic tincture, or distilled water; dried lemon or orange peel; fennel or aniseeds:—to increase its effects on the bowels, manna, rhubarb, tamarinds, figs, or prunes, are generally added. In a state of powder, the dose of senna is from a scruple to a dram; but, when taken in decoction, from one to three or four drams are required.

SEPTFOIL.—See *Tormentil*, the Common.

CENTAURY.—Is justly esteemed to be the most efficacious bitter of all the medicinal plants indigenous in this country. It has been recommended as a substitute for gentian, and, by several, thought to be a more useful medicine. Many authors have observed, that, along with the tonic and stomachic qualities of a bitter, centaury frequently proves purgative; but it is probable, that this seldom happens, unless it be taken in very large doses. The tops of centaury are commonly given in infusion, but they may also be taken in powder, or prepared into an extract.

SERRADILLA, OR COMMON BIRD'S-FOOT.—A valuable plant, which thrives much better than saintfoin, or any other grass, on poor sandy soils: it is propagated by drilling the seed



rows, two feet asunder; but may be transplanted in the same manner as cabbages. This vegetable affords a grateful food to cattle of every description: it has not, indeed, been hitherto extensively cultivated, excepting by *Langford Millington, Esq.* of Rushford, Norfolk; whose spirited experiments are recorded in the 27th vol. of *Annals of Agriculture*; but as it promises to be productive of the greatest benefit to agriculturists, on the poorest lands, we trust that it will in future be generally introduced into such situations.

**SERVICE-TREE.**—A genus of native trees, consisting of three species, namely:

1. The *aucuparia*.—See *Quickentree*.

2. The *True Service-tree*, grows in mountainous forests, principally in Cornwall, Staffordshire, and in the county of Worcester. It flowers in the month of April or May.—The fruit of this species being mealy and austere, like that of the Medlar, is a powerful astringent, and of considerable service in alvine fluxes, especially in dysenteries, hence we learn from *Bechstein*, that the soldiers in the Prussian army, who were attacked with that epidemic in 1792, and to whom the rob, or even the berries, were given in sufficient quantities, uniformly recovered, while others died of the disorder. Nor is this fruit less fruitful for making cyder, and distilling brandy. Its wood is remarkably hard, and therefore valuable to turners for screws or cog-wheels; and to mathematical instrument-makers, for rulers, gauging-sticks, &c.

3. The *Bastard Mountain Ash*, or *Bastard Service*, is found principally on mountains, where it flowers in the month of May.—This tree forms a singular variety of the two preceding species, and consequently partakes of their united properties. Its wood, however, is softer than that of the true Service-tree; and, though affording good fuel, its charcoal is greatly inferior to that obtained from the latter:—its berries are sweeter, and preferably eaten by birds.

The Service-tree is cultivated in Britain, principally as an ornament for diversifying extensive plantations; as it grows to the height of 40 feet. It is propagated by sowing the seed, a short time after the fruit is ripe, in pots, which must be sheltered during the winter; and, when the spring advances, it will be proper to plunge them in hot-beds, and to water them frequently during dry weather. Towards the middle of October, the young plants may be removed to a warm spot of light soil, and placed one foot apart from each other, in rows two feet asunder. Here they should remain for three or four years; at the expiration of which, they ought to be transplanted to the place appropriated to their growth.

**SERVICE-TREE, THE WILD.**—See *Hawthorn*.

SETTER-WORT.—See *Hellebore*, the Fetid.

SHEEP'S-BIT, OR HAIRY SHEEP'S-SCABIOUS.—An indige-  
nous annual plant, growing in meadows, pastures, and heaths,  
in dry and sandy situations ; where it blows in June and July.—  
Its blue flowers emit a strong, musky odour ; and are eagerly  
visited by bees. The leaves contain a sweetish mucilage ; on  
which account they afford grateful food to sheep.

SHEPHERD'S NEEDLE.—See *Needle*, the Common Shep-  
herd's.

SHEPHERD'S PURSE, THE COMMON, OR SHEPHERD'S  
POUCH.—A native plant, growing among rubbish, on road-  
sides, walls, in corn-fields, and gravelly walks ; flowering from  
March to September.—Dr. *Withering* observes, that this herb  
evinces the influence of soil and climate on vegetables ; as it  
thrives in almost any place, bears flowers, and perfect seeds,  
when only two inches high ; while, in more favourable situations,  
it attains the height of two or three feet.

According to *Bradley*, the dried leaves of the Shepherd's Parse,  
reduced to powder, and taken in red wine, form an efficacious  
remedy in diarrhœas, and other fluxes, where astringents are  
indicated.—The expressed juice of this plant, operates as a pow-  
erful styptic, especially in bleedings from the nose, when intro-  
duced into the nostrils.

SILVER-WEED, WILD TANZEY, OR GOOSE-GRASS, a Bri-  
tish perennial plant, growing on the sides of paths and roads, and  
in low pastures ; flowering in June and July.—*Gunner* observes,  
that the Scotch and Irish, in times of scarcity, convert the roots  
of this vegetable into flour and bread.—*Gleditsch* recommends the  
whole herb in the process of tanning calf-leather.—According to  
Dr. *Withering*, the leaves are mildly astringent : hence, when  
dried and reduced to powder, they have been used with success,  
in agues. The usual dose is a meat-spoonful every three hours,  
to be given between the paroxysms.—In the winter season, the  
roots of the Wild Tanzey possess the flavour of parsnep.—The  
plant is eaten by cows, horses, goats and hogs, but refused by  
sheep.

SIMAROUBA.—An exotic tree growing in Guinea, and also  
in Jamaica, where it attains a considerable height and thickness.  
—Its bark is used in medicine, and is imported in long pieces of  
a yellowish colour, and a strong bitter taste. Being mildly as-  
tringent, it has been advantageously prescribed in doses of half a  
dram, in the form of a decoction, to be repeated every third or  
fourth hour, in bloody and other alvine fluxes, and towards the  
termination of putrid fevers ; when it restores the tone of the  
intestines ; allays their spasmodic irritation ; promotes the secre-  
tions by perspiration and urine ; while it disposes the patient to  
refreshing sleep. It should, however, be remarked, that such

medicine would be highly improper, where an inflammatory disposition prevails, or a suppuration in the bowels is apprehended: nor can it be taken with safety, when the alimentary canal is obstructed.—In a state of powder, the Simarouba may be taken in doses from 10 to 20 grains, every three or four hours.

SKIRRET, THE COMMON.—An exotic plant, which is frequently cultivated in British gardens, on account of its utility for culinary purposes. It is propagated from the seed obtained in the second year, but more advantageously by means of small roots or fibres. The skirret bears great resemblance to parsnep; tho' the former is so tender that it will scarcely admit of being boiled; for which reason it is frequently eaten as fruit, in a raw state: when stewed, however, it forms an excellent ingredient in soups.

The common skirret has an agreeable, aromatic flavour, abounds with saccharine particles: hence it has been conjectured, that sugar might be advantageously extracted from the roots; and *M. Margraaff* states, that he obtained one ounce and a half of pure sugar from half a pound of this vegetable.—*Bohmer* observes, that it may more profitably be distilled, and converted into brandy.—In a medicinal view, it possesses diuretic properties, and is in a slight degree stimulant.

SKIRRET.—The Broad and Narrow-leaved. See *Parsnep*, the Water.

SLOE-TREE, BLACK-THORN, OR SCROGGS.—An indigenous shrub, growing wild in hedges, and woods; flowering in the months of March and April. It generally attains the height of from 10 to 12 feet, and spreads its branches from the root; producing small, round, black berries in autumn, which possess a very austere taste, till mellowed by frost.

Being of a very quick and bushy growth, the sloe-tree is well adapted for hedges and other fences; though it is not calculated for situations where its spreading roots might obstruct the growth of vegetables planted in its vicinity.—The wood is hard and tough; on which account it is usefully converted into walking-sticks, teeth for rakes, and turnery-ware.—*Dr. Withering* observes that, from the effects which follow the punctures made by the thorns of this tree, he has reason to believe, they contain some poisonous matter; especially if such wounds be inflicted in autumn.—The young and tender leaves, when dried, afford, in his opinion, the best substitute for the foreign teas.—If bruised, and infused in currant or rasin-wine, sloes impart a beautiful red colour, and a pleasant rough, sub-acid taste, resembling that of Port-wine; a fact too well known to the dealers in that favourite and expensive liquor.—Characters impressed on linen, or woollen cloth, with the juice of the fruit, are said to be permanent. On adding green vitriol to this liquid, the shade is not changed; but,



if it be employed for writing on paper, or dyeing linen, and afterwards exposed to the air, an indelible black colour will be the result, and which is superior to that obtained from the best galls.—The dried berries of the black-thorn dye-linen of a red hue, which, on repeated washing, changes to a durable light-blue.—The bark boiled in ley, also yields a red tinge; and, in order to facilitate the decortication of this shrub, it ought to be effected in the spring:—a decoction of the root, on adding a solution of bismuth, communicates a cinnamon shade to wool.—The blackish bark is farther, useful for preserving cheese from corruption; a fact attested by *Bechstein*: the same rind, together with the unripe berries, may be advantageously used in tanning.

In a medicinal respect, a handful of the flowers of the sloe-tree, either infused in water, or boiled in milk, and strained, affords a draught which operates as a safe and gentle purgative.—According to Dr. *Withering*, the bark, when reduced to powder, and administered in doses of two drams each, has cured some species of the ague.—An inspissated extract of the same substance forms an excellent astringent, which is frequently employed on the Continent, as a substitute for the more expensive, but less efficacious Indian drugs of this description: and it is highly probable, that such preparation might, in many cases, be employed with safety, instead of the Peruvian bark, which is seldom obtained in a genuine state from the shops.—The leaves of the sloe-tree are eaten by horses, sheep, and goats: the bark is relished by hares, deer, and other wild quadrupeds.

**SNAKE-WEED.**—A genus of plants comprehending thirty-three species, ten of which are natives of Britain: the following are the principal, namely:

1. The *Hydropiper*.—See *Water-pepper*.

2. The *Spotted Snake-weed*, abounds in ditches, and watery situations; though it is sometimes found in corn-fields; where it flowers from the month of July to September. This species is slightly acid and astringent: it is eaten by goats, sheep, and horses, but refused by hogs and cows.—*Linnaeus* informs us, that woollen cloth, previously dipped in a solution of alum, acquires a yellow colour from a decoction of this plant.—*Dambourney* obtained an olive colour.

3. The *Bistorta*.—See *Bistort the Great*.

4. The *vioparum*.—See *Bistort the Small*.

5. The *Fagopyrum*.—See *Buckwheat*.

6. The *Convulvulus*.—See *Buckwheat the Climbing*.

7. The *Knotgrass Snake weed*, is found on road-sides, in paths, streets, and corn-fields, particularly in a gravelly soil: it flowers from April to October.—This species of grass is eaten by cows, horses, sheep, goats and hogs: its seeds are a grateful food to small birds of every description; and may likewise be employed

for the same purposes as those of *Buckwheat* : but sheep, feeding on the knot-grass snake-weed, become, according to *Bechstein*, liable to obstructions, and consequently to putrid diseases.

SNAP-DRAGON.—A genus of plants consisting of fifty-three species, eleven of which are indigenous : the following are the principal :

1. The *Elatine*, or Sharp-pointed Toad-flax.—See *Fluellin*.

2. The *Linaria*.—See *Toad-flax*.

3. The *Greater Snap-Dragon*, grows on old walls, especially on the chalk-cliffs near Dover and Gravesend, where it flowers in the months of June and July.—This herb was formerly in great repute among the superstitious ; but, at present, an excellent lamp-oil is expressed from its seeds in Germany.

4. The *Calf's-snout*, or *Lesser Snap-dragon*, thrives in corn and turnip-fields, and bears purplish flowers covered with a yellow down, in the months of July and August.—This narcotic, poisonous plant, ought to be carefully extirpated.

SNEEZE-WORT-YARROW, BASTARD PELLITORY OR GOOSE-TONGUE.—A native perennial plant, growing in moist meadows and shady places ; flowering in July and August.—It is eaten by horses, cows, goats, hogs, and sheep ;—the roots have a hot pungent taste ; the leaves, when dried and pulverized, excite sneezing ; and its young tops afford a sharp, though pleasant, ingredient in spring salads.

SNOW-DROP, THE COMMON, OR FAIR-MAIDS-OF-FEBRUARY.—A native perennial plant, growing in orchards, meadows, and the sides of hedges ; flowering in February or March.

The snow-drop presents a beautiful little flower, and is chiefly esteemed on account of its early appearance ; adorning the garden, when the soil is covered with snow : it is divided in three varieties, known under the names of single, semi-double, and double, which differ only in the seasons of their flowering. They may be easily propagated in any soil, and will multiply exceedingly by offsets from the roots.

The roots of the snow-drop may be made subservient to an useful domestic purpose : Dr. *Darwin* thinks that, if they were dug up in the winter, and prepared in a similar manner, they might afford a nutritious powder, resembling that of *salap*. He observes, that he once boiled a few ; which on tasting them, possessed no unpleasant flavour. He is therefore of opinion, that, if prolific seeds could be procured from this plant, it might be advantageously cultivated for the same purpose as the *Orchis* ; a conjecture which is corroborated by the experiments of *Gleditsch*, who obtained from the roots of the snow-drop, an excellent starch.

SOAP-WORT, THE COMMON OR BRUISEWORT.—A native perennial, growing in meadows and hedges ; flowering in July and August.—The leaves possess a disagreeable bitter taste : if

bruised and agitated with water, they produce a saponaceous froth, which may serve for removing greasy spots from linen, as well as woollen cloths; but it discharges no colours.—The roots are somewhat pungent, have a sweetish taste, and in smell resemble those of liquorice: a strong tincture may be prepared, by digesting them in rectified spirits.—In medicine, this plant is now exploded; but, in domestic economy, the sap expressed from the root, stalk, and leaves, may be employed as a substitute for soap, in cleansing raw or coarse cloth, and likewise for fine linen, in the washing of which, it will save at least one-half of that expensive article, otherwise required.—Lastly, the admirers of winged insects may catch the most beautiful butterflies on the flowers of the common soap-wort, which are visited by them during twilight.

**SOFT-GRASS, THE MEADOW.**—A native perennial, growing in meadows and pastures, particularly in moist, light situations: it flowers in the months of June and July. This grass, though vegetating late in the season, is very productive; but is not much relished by cattle it makes a soft, spongy hay, that is very hurtful to horses; which by eating it, become affected with a profuse discharge of urine, and general weakness. In case any hay, obtained from this vegetable, be accidentally given to those valuable animals, an immediate change of food will prevent its farther ill effects.

As the stalks of the meadow soft-grass attain a height of from two or three feet, and the root is eminently calculated for consolidating loose sandy soils, it merits to be cultivated in such situations.

**SOLOMON'S-SEAL, THE SWEET-SMELLING.**—A native perennial, which grows in mountainous woods, and the fissures of rocks, principally in the county of York: it flowers in the months of May and June.—This vegetable is eaten by sheep and goats, but refused by horses, hogs, and cows.—Its roots consist of a pulpy, tuberous, white, sweet, and mucilaginous, substance: in times of scarcity, they have been converted into wholesome bread; and are always used for that purpose, by the lower classes in Sweden and Russia: a good starch may likewise be extracted from them; and the expressed juice, being somewhat acrid, serves as a cosmetic, or a lotion for pimples, &c.—The young shoots of this, as well as of the following species, may, in the spring, be eaten like asparagus.

**SOLOMON'S-SEAL, THE COMMON.**—Is also perennial; grows in woods and thickets; and flowers in May or June. This plant is eaten by cows, goats, and sheep; it possesses the properties of the preceding, but in an inferior degree; and to which it bears so close a resemblance, that it can be distinguished only by its smaller, white flowers, tipped with green; whereas



those of the former are larger, though less in number, and white, with a green line running down each segment.

**SORREL, THE COMMON, OR SORREL-DOCK.**—A native perennial, growing in meadows and pastures, where it flowers in the month of June.—This vegetable is eaten by horses, cows, goats, sheep and swine.—It is cultivated in France and Britain, for culinary purposes; as, in the former country, its leaves are a frequent ingredient in soups, and also eaten in salads; in the latter, they are esteemed for their cooling properties, because they tend to allay thirst; to promote the urinary discharge; and, when boiled in whey, they afford a palatable drink to persons labouring under inflammatory fevers.—In Ireland, the sorrel-leaves are used by the lower classes, both as a kind of sauce to fish, and also with milk: they possess, however, a very austere, acid taste, when raw, insomuch as to divest the teeth of their enamel; hence they should not be eaten by those whose stomach abounds in acidity.

The seeds of this vegetable were formerly used in medicine; but are at present, according to *Hedin*, employed by the Swedes among their bread-corn, and reduced to flour; nay, the inhabitants of Carelia convert them into bread, without any addition.—Its roots have an austere, bitterish, taste, and are chiefly valuable to tanners; and also for the red tinge which they yield, after having been dried and boiled. On adding alum to this decoction, painters prepare a fine red colour, but which is useless in dyeing.—*Boerhaave* obtained from the juice of the Sorrel-dock, an essential salt, resembling that of lemons.

**SORREL, THE SHEEP'S, OR DOCK.**—Is also a native perennial, which grows in sandy meadows, pastures, and gravel-walks, it flowers in May and June.—The stalks of this plant which afford a wholesome food for sheep, seldom exceed 12 inches in height: it deserves, however, to be mentioned, that cows partaking of the Sheep's Dock, yield a milk tinged with blood.

**SORREL, THE COMMON WOOD, SOUR TREFOIL, OR CUCKOW-BREAD.**—Another native perennial, which abounds in woods, shady hedges, and on heaths: it flowers in the month of April.—This vegetable is eaten by goats, hogs, and sheep; but is not relished by cows, and is refused by horses. Its purple leaves yield, on expression, a gratefully acid juice, which has been beneficially used in scorbutic eruptions: and, if such juice be properly clarified, evaporated, and deposited in a cool place, it will produce a considerable quantity of acid crystals, which may be employed for removing iron-moulds from linen-cloth; and which are sold under the name of Essential Salt of Lemons.—An infusion of the leaves makes a palatable diet-drink in ardent fevers; and, on being boiled in milk, they form an agreeable whey. They have also been successfully applied to scrophulous

ulcers, when rolled in a cabbage leaf, and digested in warm ashes, till they were reduced to a pulp.—But the most easy and efficacious way of preserving these leaves, is that of converting them into a kind of conserve, with the addition of double their weight of sugar; in which form, they are an excellent substitute for lemons, and may be given with advantage in all putrid and other fevers, where antiseptics are indicated.

**SOUTHERN-WOOD, THE COMMON.**—See *Mugwort*, the Common.

**SOUTHERN-WOOD, THE SEA.**—See *Wormwood*, the Sea.

**SOW-THISTLE.**—A genus of plants forming 13 species, four of which are indigenous: the principal are the following:

1. The *Common Sow Thistle*, grows on cultivated ground, dungs, hills, and in hedges; its yellow flowers appear from June till August.—The leaves of this troublesome weed are the favourite food of hares and rabbits; they are likewise dressed and eaten among other culinary herbs. The roots have occasionally been converted into bread.—Sheep, goats, and swine, devour this vegetable, but it is not relished by horses.

2. The *Corn or Tree Sow Thistle*, is perennial, thrives in clayey corn-fields, and on ditch-banks, where it blows in August.—It is remarkable that the flowers of this plant follow, in a regular manner, the course of the sun.—Cows and goats eat this species, of which horses are exceedingly fond.—*Bechstein* remarks, that the young shoots of the Corn Sow-thistle, when cut out in the spring, and mixed with bran, afford an excellent food for cattle and swine.

3. The *Marsh Sow-Thistle*, grows in watery places, and on the banks of rivers, where it attains the height of from six to ten feet; flowering in July and August.—While young, this plant furnishes nourishing food for cattle: hence it deserves to be cultivated in swampy meadows.—Its flowers, like those of all the thistles, are visited by bees.

**SPATTLING-POPPY'S, WHITE BOTTLE, OR BLADDER CAMPION.**—A native perennial, which grows in corn-fields, dry meadows, and pastures: it flowers in July and August.—The leaves of this vegetable, when boiled, possess the flavour of pease; and are by the Gothlanders advantageously applied to crysipelatous eruptions. The flowers are eagerly visited by bees, as well as by the most beautiful butterflies, in twilight.

**SPEAR-MINT.**—See *Mint*.

**SPEARWORT, THE GREAT.**—An indigenous perennial, growing in wet pastures, and at the sides of lakes: it flowers in the months of June and July.—The stem of this poisonous plant is very thick, and attains the height of two feet; the leaves have no stalks; and the large bright-yellow, glossy flowers, appear on the extremities of the shoots. The whole is extremely acrid,

and if any part of this herb be eaten by cattle in a fresh state, it is apt to produce fatal distempers.

**SPEARWORT, THE LESSER.**—Is also a native perennial, growing on bogs, swampy meadows, and the sides of rivulets; flowering from June to September.—It is eaten by horses, in which it occasions many concealed disorders, but is refused by cows, goats, sheep, and hogs.—This plant is very acrid; if externally applied, it inflames and blisters the skin:—its distilled water is a most powerful emetic, operating as soon as it is swallowed; and Dr. *Withering* states, from his own experience, that, in cases of poison having been accidentally swallowed, or in which it becomes necessary to produce an immediate vomiting, such distilled water is preferable to any other preparation; as it does not excite the painful contractions, which are sometimes consequent on the use of white vitriol, and thus defeat the object for which the latter is administered.

**SPEEDWELL.**—A genus of plants comprehending 54 species, 117 of which are indigenous: the principal of these are the following:

1. The *Beccabunga*.—See *Brooklime*.

2. The *Chamædryas*.—See *Germander the Wild*.

3. The *Common Speedwell*, *Male Speedwell*, or *Fluellin*, is perennial, grows on heaths, and in barren grounds; flowers from May till August.—The leaves of this vegetable are slightly bitter and astringent: formerly, an infusion of them was highly prized, as a domestic remedy in coughs and asthmatic complaints.—In a decoction with iron-filings, these leaves yield a black dye for leather.—The plant is eaten by cows, sheep, goats, and horses: but refused by hogs.

4. The *Narrow-leaved Speedwell*, thrives on poor swampy soils, and flowers from June to August.—It affords grateful food to geese and ducks.

5. The *Narrow-leaved Pimpernell-Speedwell*, grows in slow streams and shallow ponds, where it flowers in July and August.—This species may be eaten both as salad, and among other culinary vegetables.

**SPIDERWORT, the MARSH, MARSH-TOFIELDIA, or SCOTCH ASPHODEL.**—A native perennial, which grows in bogs, on mountains in Scotland, and flowers from July to September.—This plant, though useless in domestic economy, deserves some notice; because it may serve as a guide to dig for peat, in situations destitute of sea-coal.

**SPIGNEL, or SPICKNEL.**—A native perennial, growing in mountainous pastures, principally in the northern counties, where it flowers in the month of May.—The roots and seeds of this vegetable have a pleasant aromatic smell, and a hot, bitterish taste. They have occasionally been used as carminatives; and also been



administered in tertian agues. At present, they are seldom employed, either in domestic economy, or in medicine : though Dr. *Withering* observes, that they will often answer as substitutes for pepper, or other pungent aromatics.

SPINACH, or SPINAGE, the COMMON.---An exotic plant, cultivated in Britain, for culinary purposes. If intended for winter-use, it is propagated by the seed, in beds of light, rich earth, towards the end of July, and during moist weather. When the young plants appear they must be carefully weeded, and thinned to the distance of five inches : in October, they will be fit for use : when the longer leaves only should be gathered ; those in the centre being suffered to grow to a larger size ; so that a bed, thus managed, will afford a supply of this vegetable during the winter, till the spinach sown for spring-use, is fit for the table ; which generally succeeds in April.

This vegetable is greatly esteemed at the table ; but, when dressed with melted butter, it passes speedily through the bowels, without being duly digested ; and consequently affords little nutriment. It is particularly improper for persons of weak and relaxed habits ; as it debilitates the alimentary canal ; excites looseness ; and not unfrequently occasions the heart-burn, or acidity in the stomach.

SPINAGE, the WILD.---See perennial *Goose-foot*.

SPINDLE-TREE, the COMMON, PRICK-TIMBER, GATTERIDGE-TREE, or LOUSE-BERRY.---An indigenous shrub, which in favourable situations, attains the height of 20 feet : it grows in woods and hedges, and is very common in Devonshire ; where it flowers in the months of May and June.

The berries of this elegant shrub operate violently, both as an emetic, and cathartic :---if eaten by sheep, they infallibly destroy them. Reduced to powder, and sprinkled on the skin of men or animals, these berries are said to exterminate vermin of every description.---When the Spindle-tree is in blossom, its wood is remarkably tough, and broken with difficulty ; in such state, it is employed by watch-makers, for cleaning time-pieces ; by musical instrument-makers, turners, and for veneering.---We learn, however, from *Bohmer*, that some artisans, working in this wood, have asserted, that they became subject to nausea and vomiting.---The shoots of the Spindle-tree, in the spring, are so grateful to cows, that they generally damage the banks of fences, in order to obtain their favourite food.---Sheep and goats also eat the leaves ; but they are disliked by horses.

In dyeing, the bark of this shrub imparted, according to *Siefert*, a pleasing sea-green colour to woollen cloth, by adding to the decoction of such rind, one-sixth part of a solution of verdigrease, saturated with crystals of tartar. The tint was so permanent, that no change took place in its shade, after having been

exposed for a fortnight to the rays of the sun.—The seed-capsules of the Gatteridge-tree, when fermented in alum-water, produce a durable pale-yellow dye.

**SPLEENWORT, OR HEART'S-TONGUE.**—A native perennial, growing in the fissures of moist shady rocks, old walls, and at the mouths of wells; where it flowers in the months of August and September. The medicinal powers of this vegetable are highly praised for curing the bites of venomous serpents; in hypochondriasis; palpitations of the heart, &c. of which, however, we have had no experience.

**SPOON-WORT.**—See *Scurvy-grass*, the English.

**SPRING-GRASS, THE SWEET-SCENTED, OR VERNAL-GRASS.**—An indigenous perennial, growing in the meadows and pastures; flowering in the months of May and June.—This is one of the earliest British pasture-grasses, and occasions the delicate flavour perceptible in newly-made hay. It is eagerly eaten by cows, horses, goats, and sheep; on account of its aromatic taste, and juicy, nutritive nature.—Mr. *Swayne*, however, observes, that it abounds in wet lands, particularly on peat-bogs; and that it appears to be of little consequence; as it is neither very productive to the farmer, nor palatable to cattle.—Nevertheless, other agriculturists are of a different opinion; and Mr. *Sole*, (See letters and papers, &c.) conceives that the vernal-grass would be an useful addition to meadows, by sowing it in the proportion of one-eighth. This judicious advice, every practical husbandman will be induced to adopt; as it is a well-known fact, that this fragrant herb not only remarkably spreads, and increases in its bushy stalks, when cultivated in favourable situations, but it also effectually checks the growth of moss, in sour meadows.—It is farther remarkable, that the root of this grass possesses a strong odour, resembling that of musk.—The dried blossoms are, on the Continent, employed for imparting an agreeable flavour to snuff and tobacco.

**SPURGE.**—A genus of plants, comprehending 110 species; 12 being natives of Britain; the principal of which are the following:

1. The Red Spurge, grows in woods and hedges, where it flowers in the month of June.—The pulverized leaves of this plant, if taken in doses of from 15 to 25 grains, operate as a brisk purgative:—its juice, like that of all the other species of the spurge, is so extremely acrid, that it ulcerates every part of the body, with which it comes in contact. Hence, it is never used internally:—but, a single drop put into the cavity of an aching tooth, is said to have removed the pain, and at the same time destroyed the nerve. This corrosive liquid, however, may, according to Dr. *Withering*, be applied with safety to warts and corns; as it eradicates them in a very short time.

2. The Sun-spurge.—See *Wartwort*.

3. The *Cyprus Spurge*, grows in dry woods (at Enville, in Staffordshire), where its yellow flowers blow in May and June.—Goats are exceedingly partial to this herb; and its seeds afford grateful food to pigeons.—The beautiful caterpillar, which is changed into the Spurge-butterfly, derives its nourishment from the leaves of this species.

SPURGE-LAUREL, OR LAUREL MEZEREON.—An indigenous shrub, found in woods and hedges, principally in the county of York, where it flowers in March and April.—The whole of this vegetable, especially the bark of the root, is very acrid: it has been employed with success in rheumatic fevers, operating powerfully as a purgative. It is likewise an excellent vermifuge; but, as it possesses great acrimony, it ought never to be administered without medical advice, and in small doses, which should not exceed ten grains.—On account of its elegant green and yellow flowers, which appear in the early spring, and sometimes in the winter, this evergreen is cultivated in shrub-berries; but it deserves to be remarked that its black berries, though eagerly eaten by pheasants, prove mortal food to man, and all the mammillary animals.

SPURREY.—A genus of plants comprising five species; three being natives of Britain. The principal of these is the Corn Spurrey, which grows in corn-fields, and sandy situations; flowers from July to September. This vegetable is eaten by horses, sheep, goats, and hogs; but is, according to *Withering*, refused by cows. *Bechstein*, *Funks*, and other naturalists however, inform us that the corn-spurrey is not only devoured with avidity by all cattle, but is also conducive to their health, while it remarkably tends to increase the milk of cows, and to fatten sheep. Hence this weed is industriously cultivated in Flanders; because it is so far superior to other pasture-grasses, that it continues green till a late period of autumn, and often throughout the winter. Its seeds are eagerly swallowed by poultry, and afford on expression a good lamp-oil: nay, the flour obtained from them, when mixed with that of wheat or rye, produces wholesome bread; for which purpose, it is often used in Norway and Gothland.

ST, JOHN'S-WORT.—See *John's Wort*.

STAR OF BETHLEHEM.—A genus of plants, comprising 35 species, 7 of which are indigenous: the principal of these is the Yellow Star of Bethlehem, growing in woods, and moist sandy places; where its beautiful yellow flowers appear, in April.

All the species of this vegetable are hardy perennials, and prosper in any situation: they may be easily propagated by off-sets from the bulbous roots. These may be preserved for a long



time, either in a raw or roasted state; and *Ruellius* remarks, that a wholesome and nutritious bread may be prepared from a mixture of the roots and seeds of this plant.—It is eaten by horses, goats, and sheep, though not relished by hogs; and is totally refused by cows.

**STAR-GRASS.**—A genus of plants, consisting of four species, two of which are indigenous, namely: 1. The Vernal Star-grass, Water-Starwort, Water-Fennel, or Star-headed Water-Chickweed, grows in ditches, ponds, and slow streams: it flowers from April to August. 2. The Autumnal Star-grass, abounds in ditches and still waters, where it flowers in August.

Both these vegetables grow so thickly matted together, as to enable a person to walk over them, without sinking: hence, they may be advantageously planted, with a view to consider swampy, or marshy grounds, so as to prepare them for tillage.

**STAR-WORT.**—A native perennial, growing in salt-marshes, both on the sea-coast, and in those which are distant from the shore: it flowers in the months of August and September. This vegetable is eaten by goats and horses; but is not relished by sheep, and totally refused by hogs. From its thriving in inland situations, the Sea-Starwort has been conjectured to indicate the presence of subterraneous salt-springs.

**STONE-CROP.**—A genus of perennial plants, comprising 31 species, 9 being indigenous; of which the following are the most remarkable:

1. The Orpine Stone-crop.—See *Orpine*, the Common.

2. The *Wall-pepper*, *Biting*, or *Pepper Stone-crop*, grows on the surface of walls, roofs, rocks, and in dry pastures; flowers in June or July. This vegetable is eaten by goats, but refused by horses, cows, and sheep. It continues to vegetate, while suspended in a chamber: being very acrid, if applied externally, it excites blisters; but, when taken internally, occasions vomiting.—According to Dr. *Withering*, it is an excellent remedy in scorbutic cases, and in quartan agues: a table spoonful of its expressed juice operates powerfully as a purgative. At present, however, it is seldom employed; though on account of its active properties, the wall-pepper promises to be an useful medicine, when administered with judgment.

3. The *Yellow Stone-crop*, thrives on walls, roofs, and rocks, where its bright yellow flowers appear in July.

4. The *Rock Stone-crop*, grows principally on St. Vincent's rock, near Bristol, and on the Cheddar hills, in Somersetshire. It differs from the preceding species only in its smaller flowers, which likewise blow in July.

Both vegetables, last mentioned, having an agreeable, pungent taste, are cultivated in Holland and Germany, where they are esteemed as ingredients in salads. They may be easily propagated,

by planting either their roots, or the cuttings of the shoots in a moist soil, where they will readily take root, and spread with great luxuriance.

**STRAWBERRY.**—A genus of plants, comprehending three species, two of which are indigenous; but the principal is the Common Strawberry, growing in woods, hedges, and hollow ways; where its flowers appear in the months of May or June; and are succeeded by small red fruit. The plant is eaten by sheep and goats, but is not relished by cows; and is totally refused by horses and swine.

The common Strawberry is the parent stock from which all the different varieties have been obtained by culture: the most remarkable of these, are:

1. The *Wood-Strawberry*, with oblong serrated leaves, and small white, round fruit.—2. The *Green* or *Pine-apple Strawberry*, which has received this name from its delicate flavour, resembling that of the Pine-apple.—3. The *Scarlet* or *Viginian Strawberry*, which has also oval, serrated leaves, and bears a roundish berry, of a deep scarlet colour.—4. The *Hawthy* or *Mush Strawberry*, is a native of America, but has long been raised in British gardens: it is remarkable for its rough spear-shaped leaves, and its large pale-red fruit.—5. The *Chili Strawberry* has oval, thick hairy leaves, large flowers, and firm berries.—6. The *Alpine Strawberry*, has small oval leaves, diminutive flowers, and oblong, pointed fruit, of a moderate size.—7. The *Monthly*, or *Ever-flowering Strawberry*, originally a French variety, produces very delicate fruit, generally pointed towards the top, and bulky below; being in season from May to November: the plant itself, however, is very small, has diminutive leaves, and furnishes but few off-sets for transplantation.

All the varieties of this vegetable are hardy, perennial plants, which flower in May and June, producing perfect fruit in June, July, August, and even till November. They may be propagated by planting off-sets, or suckers, in any light, rich garden-soil, where they annually yield abundant crops, if properly weeded, and supplied with moisture. Their fertility, however, will be considerably increased, by transplanting them every second year into fresh beds, that have previously been dug, or otherwise prepared for their reception.

As the Strawberry is one of the most exhausting plants, and requires ample nourishment, all weeds growing in its vicinity should be carefully removed. Hence it will be found, that the earth in which an old stock has grown, undisturbed for several years, on digging up its roots, in a manner resembles wood ashes; because it is deprived of all the soluble parts.

Without entering into a minute account of the culture of this useful plant, we shall briefly remark.—That the most proper



season for transplanting strawberries, is in the month of August ; when they will have sufficient time to take root before the winter : 2. That it is not adviseable either to clip or break off the superfluous shoots, but to wind them around the principal stem, and secure the ends between the stalks ; by which simple method, the plant will be supported in an erect situation, and the fruit be preserved from the ravages of vermin, as well as from being soiled on the ground : 3. To promote the growth of the berries, the contiguous earth around the stocks ought to be covered in the spring with tanners' waste ; or, where this cannot be easily procured, with oyster-shells : thus, all weeds will be effectually suppressed, and an uniform beneficial moisture may be ensured. Lastly, when the first rudiments of the fruit appear, the soil ought to be carefully stirred by the hoe, and then manured with the following composition, that will remarkably contribute to its fertility. Take three parts of old rotten dung, one part of soot, and a similar portion of dry soap-boilers' ashes ; mix them thoroughly, and spread this compost loosely by the hand, so that the newly-moved ground may be superficially covered.

There is another, and more advantageous, method of propagating strawberries by the seed : it was originally recommended by *Du Hamel*, and has been carried to great perfection by *Du Chessne*. The seeds, consisting of small oblong, dark red-brown grains, should be collected from the surface of the most perfect, ripe berries, which have almost become dry on the stalk ; and be preserved till the succeeding spring ; when they ought to be uniformly mixed with a little dry mould, and sown in a loose, rich garden soil, which is properly worked, and levelled with the rake. Next, it will be useful to sift finely pulverised earth, or rotten dung, over the beds, to the thickness of half-a-crown piece only, and to cover the whole with branches or boughs of fir-trees. In the course of three weeks, the young plants will appear, when the covering ought to be removed, and the branches set upright along the borders of the beds : in order to shelter the tender sprouts from the influence of the meridian sun. Others sow the strawberry-seed in August, and protect the young germs with mats suspended over the beds, by means of poles. The plants, thus raised, ought to be carefully weeded and watered : those reared in the spring, may be transplanted in the autumn of the same year ; but, when sown in the latter season, they must remain in the seed-bed till the following summer. This mode of cultivating strawberries possesses many advantages over the usual practice : thus, it will be easy to obtain the most delicate foreign sorts, of which it would otherwise be difficult to procure off-sets ; nay, by sowing the seed of degenerated sorts, together with those



of superior fruit, many new and excellent varieties will result from such combination.

Strawberries are a wholesome, delicious fruit; and may be eaten alone, with sugar, or with milk, but most agreeably with wine: they have a pleasant sub-acid taste; abound with juice; and possess a fragrant smell. Being of a cooling and laxative nature, they may be considered as medicinal; and *Linnaeus* observes that, by his own experience, a copious use of this fruit has proved a certain preventive of the Stone in the Kidneys. *Hoffman* states, that consumptive patients have been completely cured by a liberal allowance of these berries. Farther, they promote perspiration; impart their peculiar fragrance, together with a violet colour, to the urine; and dissolve tartarous concretions on the teeth. In domestic economy, a palatable jam, wine, and vinegar, are prepared from this fruit.

An infusion of the strawberry-leaves, while young and tender, makes excellent tea; but, for such purpose, they ought to be dried in the shade: being slightly bitterish and styptic, they have been used with advantage in laxity and debility of the intestines; in immoderate secretions, or suppressions of the natural evacuations, as likewise in hemorrhages and other fluxes. Lastly, they are of considerable service as aperients, in suppressions of urine; visceral obstructions; the jaundice, and many other complaints.

**STRAWBERRY-TREE.**—A genus of shrubs, consisting of nine species, three of which are indigenous: namely,

1. The *Common Strawberry-tree*, which grows on barren limestone rocks, particularly in the western parts of Ireland, where it flowers in September. This species is a principal ornament of our shrubberies, on account of its beautiful foliage, and its fine yellow flowers in autumn, which produce berries in the succeeding year, so that blossoms and fruit appear at the same time: the latter, however, is not grateful to the taste, even though mellowed by frost. Nevertheless, it is eaten by the lower classes of people, who are accustomed to drink water, after partaking of such repast. The Common Strawberry-tree may be propagated by cuttings, by layers, or by seed. These should be set early in March, in pots of light rich earth, and afterwards put in a hot-bed: in the course of five or six weeks, they will strike firm root in the mould, when they ought to be gradually inured to the air. During frosty weather, it will be advisable to shelter them, and occasionally to expose them to the open air, in mild weather. After two or three years, the young plants may be removed to the place of their destination; for they will have become so hardy as to resist the severest winters, in any soil or situation.

2. The *Mountain Strawberry-tree*, or *Black-berried Alpine Arbutus* thrives on dry mountains in Scotland, and the Western Isles,

where its flowers appear in May, and are succeeded by round, black berries. This species is refused by goats; its fruit possesses a flavour slightly resembling that of black currants; to which, however, it is greatly inferior. Its branches and evergreen leaves have been advantageously employed in tanning.

3. The *Bear-berries*, *Bear Wortle-berries*, or *Bear-berry Strawberry-tree*, grows on dry heaths, and woods, chiefly in the Highlands of Scotland; and flowers in the month of May or June. This plant is refused by horses, cows, goats, and sheep. Its leaves have an astringent bitterish taste, and are generally used in Sweden and Russia, for tanning leather; and in combination with iron or its preparations, for striking a black colour. When dried and pulverized, they have been advantageously given in doses of from a scruple to a dram, repeated two or three times every day, in calculous and nephritic complaints.

The berries of both the last mentioned species of the Strawberry-tree, have been recommended by *Linnaeus*, as useful substitutes for grain, in the process of making bread: on account of their bitter taste, however, they ought to be bruised, macerated in different cold waters, and then baked or dried in a oven, before they are fit to be mixed with any other flour. But, even in this improved state, we conceive, they would reward the trouble of the housewife, only in times of great scarcity.

SUCCORY.—A genus of three plants, the following of which are the principal; namely:

1. The *Wild Cichory*, or *Succory*, is an indigenous biennial, growing on the borders of corn-fields, chiefly in calcarous soils; where it flowers in July and August. This vegetable is eaten by sheep, goats, and swine; but refused by cows and horses. Its leaves, when blanched, form an ingredient in early spring salads; and, if this plant be cultivated in a light and somewhat moist soil, they will be totally divested of their bitterness. The roots are moderately bitter: if gathered while young, they may be eaten among other vegetables; or, when dried and reduced to powder, they may be usefully converted into bread.—In its medicinal properties, the Wild Succory is cooling and corroborant: its juice, when taken in considerable quantities, for several weeks, so as to produce a slight diarrhœa, has been found very serviceable in inveterate cutaneous diseases. In Germany, the roots are dried, cut in small squares, roasted, ground and mixed with coffee; which, by some, is esteemed as a wholesome corrector of this foreign drug.

2. The *Endive*, is an exotic annual species, which is generally reared in our gardens, as an ingredient in winter salads. It is propagated by scattering the seeds in spots of open ground, at intervals, from the beginning of June to the end of July: in order to obtain a supply for the table. The young plants must be

removed into beds or borders, that have previously been well prepared by the spade; and, as the chief excellence of endive consists in the whiteness of its inner leaves, it will be advisable, either to cover them with flower-pots, or to tie them loosely together, when nearly full grown, so as to exclude them from the sun, for two or three weeks; in consequence of which, they will become perfectly blanched. In the winter, they are either covered with straw, and mats; or preserved in fresh sand, in a dry cellar. In its properties, this plant is not essentially different from the preceding species.

**SUFFOLK-GRASS.**—See Annual *Meadow-grass*.

**SUNDEW, THE ROUND-LEAVED, RED-ROT, OR YOUTHWORT.**—An indigenous perennial, growing in mossy bogs, and flowering in the months of July and August. The whole of this singular plant is acrid, and its juice is sufficiently caustic to erode corns, or warts; and, if it be properly diluted with milk, it forms a safe remedy for removing freckles, and similar blemishes of the skin. Any part of this vegetable coagulates milk, in a manner similar to that of the Common Butterwort; and it is likewise supposed to occasion the rot in sheep. On the other hand, the growth of the Youtwort, in particular situations, affords an useful guide in digging for turf.

**SUN-FLOWER.**—A genus of exotic plants, consisting of 14 species, most of which are cultivated in Britain; the principal, however, are:

1. The Common Sun-flower: it is easily propagated in any common soil, either by sowing the seeds, or by parting the roots in the month of March. Within a few weeks, the plants will appear; and when about 6 inches high, they should be removed into the borders of the gardens, or other places selected for their growth, at the distance of 15 or 18 inches, in quincunx order. They must be occasionally watered; and, if weeds be properly eradicated, they will vegetate with such luxuriance, as to attain the height of six or eight feet: in July they bear flowers, which continue to blow till October, when they produce ripe seeds; which, on expression, yield a large proportion of a sweet, palatable oil. The young flower-cups of this plant may be dressed and eaten like artichokes;—the stalks are of a considerable size, often exceeding an inch in diameter: hence, they may with advantage be raised in situations where fuel is scarce; indeed, we are not acquainted with any vegetable that is likely to afford greater advantages to an industrious cultivator who possesses a few acres of ground, which, is not sufficiently fertile for corn or pasture-grasses. It deserves, however, to be remarked, that it greatly tends to impoverish the land: as it requires constant moisture, and would not be productive without artificial irrigation.—See *Kitchen-garden*, vol. iii. p. 40; and *Paper*, p. 336.—*Dom. Enc.*



The different species of the Sun-flower have, hitherto, been cultivated only for ornament; but it must be obvious, that they may be rendered subservient to many economical purposes, especially as substitutes for hemp, in manufacturing pack-thread from their strong fibrous stalks. Lastly, it deserves to be noticed, that the flowers of these plants regularly take the direction corresponding to the sun's course, while they afford to bees a considerable supply of honey.

SUN-SPURGE.—See *Wartwort*.

SWEET-FERN.—See *Cicely*, the Sweet.

SWEET-FLAG.—See *Flag*, the Sweet.

SWEET-WILLOW.—See *Gale*, the Sweet.

SYCAMOORE-TREE, OR SYCAMORE MAPLE.—A large and beautiful tree, supposed to be a native of Germany, but reared in Britain, principally for the sake of its elegant appearance in plantations.—It is of quick growth, though increasing in size till 200 years old, and attaining the respectable age of four centuries: it flourishes in exposed situations near the sea, where a plantation of these trees, at 50 feet asunder, interspersed with three sea sallow-thorns between every two of the former, makes an excellent fence against the spray of the ocean. The sycamore, however, thrives most luxuriantly in a loose black earth; and the young trees ought to be transplanted at the age of 15 or 20.—Its wood is soft and white, readily works in the lathe, and is employed by turners, for manufacturing wooden bowls, dishes, trenchers, &c. When the sap rises in the spring, or retreats in the autumn, a considerable quantity of sweetish juice exudes from a hole made in the trunk, about 12 inches from the root, amounting daily to 7, 8, or 10 quarts from each tree. The Highlanders convert this liquor into an agreeable, and wholesome wine: when clarified, evaporated, and subsequently inspissated, it affords a fine, white sugar (in the proportion of one pound from 16 quarts of the sap); which, however, is too purgative for common use.—There are two varieties of this tree, one having broad leaves and large keys, while those of the other are variegated: the latter is propagated chiefly by inoculating and ingrafting; as it seldom produces perfect seeds.

TANSY, THE COMMON.—An indigenous perennial, growing in elevated meadows and pastures, on the banks of rivers, and in swampy situations; flowering in the month of June.

This plant possesses a warm, bitter taste; it is deobstruent, not ungrateful to the palate; and may be used as a substitute for hops. The tender leaves are sometimes employed to impart a colour and flavour to puddings: according to Dr. *Withering*, its seeds are an excellent vermifuge; and, if any animal substance be rubbed with this herb, it will be effectually preserved from the attacks of the flesh-fly.—Tansy-tea is recommended as a pre-

ventive of the gout.—From the expressed juice of this vegetable, the Finlanders obtain a green dye.—The plant is eaten by cows and sheep, but refused by horses, goats, and hogs.

**TARRAGON.**—Is a hardy exotic plant, growing in France, as well as in the warmer climates of Europe; and which is cultivated in Britain for culinary uses. It may be propagated by parting the roots, which will flourish in any garden soil; the herb flowering in July, and producing ripe seeds in autumn.

Tarragon is a hot, bitter vegetable, and is frequently eaten with lettuces, or other cold salad-herbs; though it is occasionally used as an ingredient in soups.—Its seeds are very pungent, and may be advantageously substituted for the more costly spices obtained from the Indies.

**TEA-TREE.**—A genus of shrubs consisting of two species; namely, 1. the Bohea, or Black Tea; and, 2. the viridis or Green Tea; both of which are natives of China and Japan, where they attain the height of 5 or 6 feet; produces flowers similar to those of the Dog-rose, and which are succeeded by fruits of the size of sloes, two or three growing together.

Since the commencement of the 17th century, the consumption of tea-leaves has become so general, that, according to the most accurate calculations, there are at present 30 millions of pounds weight annually imported into Europe; three-fifths (or, during war, three-fourths) of which are brought to London, in British vessels. Thus, we are every year drained of a sum of money which, if it were applied to the improvement of national agriculture, would support many thousand industrious families; by whose labour, during six weeks in the year, all the British empire might be provided with native teas. Nay, it is still more surprising, that, though every intelligent mind will attest the truth of this remark, yet no landed proprietor, who is in any manner connected with commercial speculations, or who has the least interest in the affairs of India, will rise in a legislative capacity, with a view to remedy, or at least to check, this serious evil; an evil which, like a slow cancer, consumes the vital principle, and exhausts the best sources of a country.

As the Tea-tree grows principally between the 30th and 40th degrees of latitude, it might be easily raised in Europe: indeed, from the success with which plantations of this shrub have lately been established by a society of nuns in Franconia, near Wurzburg, there is great reason to believe, that it would also prosper in the southern counties of Britain, if proper attention were paid, till it become habituated to our climate. There are, besides, many indigenous vegetables that may be advantageously substituted; such are Sage, Balm, Peppermint, and similar spicy plants; the flowers of the Sweet Woodroof; those of the Burnet, or Pimpernel Rose; the leaves of Peach and Almond-trees;

the young and tender leaves of Bilberry, and Common Raspberry; and, lastly, the blossoms of the Black-thorn, or Sloe-tree; most of which, when carefully gathered, and dried in the shade (especially if they be managed like Indian tea-leaves), can with difficulty be distinguished from the foreign teas, and are at the same time of superior flavour and salubrity.

Much has been said and written on the medicinal properties of tea: in its natural state, it is doubtless a narcotic, or stupefying plant; on which account, even the Chinese refrain from its use, till it has been divested of this property by roasting them on iron plates over a moderate fire. If, however, good tea be drunk in moderate quantities, with sufficient milk and sugar, it invigorates the system, and produces a temporary exhilaration; but, when taken too copiously, it is apt to occasion weakness, tremor, palsies, and various other symptoms, similar to those arising from narcotic plants; while it doubtless contributes to aggravate the hysenic and hypochondriacal complaints, which now very generally prevail in both sexes. This drug has, farther, been supposed to possess considerable diuretic and sudorific virtues; which, however, depend more on the quantity of warm water employed as a vehicle, than the quality of the tea itself. Lastly, as infusions of these leaves are the safest refreshment after undergoing great bodily fatigue, or mental exertion, they afford an agreeable beverage to those who are exposed to cold weather; at the same time tending to support and promote that perspiration, which is otherwise liable to be impeded.

Immense quantities of tea-leaves are annually imported by the East India Company, paying a duty of 5*l.* per cent. according to the value: and, when taken out for home-consumption, they are subject to the farther charge of 15*l.* per cent.; if they be under the price of 2*s.* 6*d.* per *lb.* at the Company's sales; but in case the tea exceed that sum, it is chargeable with the duty of 30*l.* per cent.

**TEASEL.**—A genus of plants exhibiting five species; three are indigenous; but the principal is the *Manured*, or *Fuller's* Teasel. It is raised from seed, which must be scattered on ridges, 7 or 10 inches apart, in the proportion of two pecks per acre. The most proper season for its propagation, is the month of April: the soil ought to be strong, rich clay, or, what agriculturists term, a good wheat-land. The young plants should be carefully weeded; and, if they grow too closely together, it will be proper to thin them, to the distance of one foot. In the spring of the second year, the teasels must be earthened up; and, in the succeeding month of July, the heads will begin to flower. In August, as soon as the blossoms decay, such heads must be cut off and exposed daily to the sun, till they become completely dry; care being taken to shelter them from rain.



The teasel is an article of considerable importance to clothiers, who employ the crooked awns of the heads, for raising the knap on woollen cloths. For this purpose, they are fixed round the periphery of a large broad wheel; against which the cloth is held, while the machine is turned.—Lastly, the blossoms of the teasel supply bees with their honey: and the water which collects within the cavities of leaves grown together, is said to be an useful application to weak or inflamed eyes; and likewise to afford a harmless cosmetic for removing spots from the face.

THISTLE.—A genus of plants, comprising 38 species; 10 of which are indigenous: the following are the principal:

1. See *Milk-thistle*.

2. The *Spear-thistle*, grows on rubbish, and road-sides, where it flowers in the months of July and August.—According to Dr. *Withering*, this species vegetates on ground newly turned up, where no other weed will thrive: under the shelter it affords, new plants will speedily appear, and the whole become fertile. Its flowers, like those of the artichoke, possess the property of curdling milk. It is not relished by horses, cows, or goats; and is totally refused by sheep and swine.

3. *Dwarf-thistle*, thrives in mountainous and rocky, dry pastures: flowering in the month of July.—This species is perennial, and should be carefully exterminated; as it is exceedingly destructive to the herbage growing beneath its shade. It is wholly rejected by cows.

4. The *Blessed Thistle*, is an annual exotic, cultivated in gardens: it flowers in the months of June and July, and produces ripe seeds in autumn.—Its leaves possess a penetrating bitter taste, and have an ungrateful flavour which, by keeping them for some time, is mostly dissipated. A decoction of this nauseous plant is sometimes used to excite vomiting; and likewise a strong infusion, to promote the operation of other emetics. Good effect have occasionally been derived from the Blessed Thistle, in loss of appetite; or where the stomach was impaired by irregularities. A strong infusion, either in cold or warm water, drunk freely, occasions a copious perspiration, and promotes the secretions.

All the species of this neglected vegetable, may be usefully employed for various purposes: thus, the seed-crowns of the thistle afford both a valuable material for manufacturing *Paper*, and a kind of strong cloth; the ashes obtained by burning the whole plant, are of great service in glass-houses; and the young, tender mealy stalks may be dressed, and eaten, as substitutes for asparagus.

THISTLE, THE COMMON ARGENTINE. OR WOOLLY ONOPORDUM —A native biennial, growing to the height of 6 feet, on rubbish, and road-sides, where it flowers in July. This ve-

getable is refused by cows, horses, and sheep;—its expressed juice, was among the ancients reputed to be a specific in cancerous cases :—the receptacles or bases of the flower-cups, together with the stems, may be boiled and eaten like artichokes.—The woolly substance enveloping the seed, is equally useful in the manufacturing of cloth and Paper.—The seeds of this remarkable plant also promise great advantages to the industrious hushandman : we learn from *Durande*, a French writer, that he collected a number of the seed-crowns, weighing 22lbs.; from which he obtained 12lbs. weight of seed ; and, on expression, 3lbs. of excellent lamp-oil, greatly superior to that of linseed, and equal to olive-oil.

THISTLE, THE SOW.—See *Sow-Thistle*.

THORN-APPLE, THE COMMON.—Originally a native of America, but now indigenous in some parts of Britain, where it grows among rubbish, and on dunghills ; flowering in the month of July.

The seeds of this vegetable have always been classed among the violent narcotic poisons : though, according to Baron Storck, and other German physicians, the inspissated juice of its leaves, has, on the Continent, been successfully employed in maniacal cases : the dose is from one to ten grains, or upwards, to be taken in 24 hours.—It may likewise be administered internally, both in convulsive and epileptic affections. Dr. *Withering* observes, that an ointment prepared from the leaves, affords relief in external inflammations, and especially in the piles.—Either the seeds or leaves, if swallowed by accident, occasion delirium, tremor, swelling, itching, insupportable thirst, palsy, and death : they likewise tend to inflame the skin. The most effectual antidotes will be speedy emetics, followed by copious draughts of olive-oil and vinegar, aided by soap-clysters.—The thorn-apple is, nevertheless, eaten by cows, goats, and sheep ; but refused by horses. Lastly, the odour of this plant is exceedingly hurtful to mankind : and, if bees happen to settle on its flowers, they die from the narcotic exhalations.

THRIFT.—A genus of plants comprising 22 species, 3 of which are indigenous: the following are the principal :

1. The *Limonium* —See *Lavender-thrift*.
2. The *Common Thrift* ; *Sea-gillflower* ; or *Sea-cushion*, which is perennial ; grows in meadows, and on rocks near the sea-coast ; where it flowers in the months of May and June. When in full blossom, it presents a beautiful sight in pasture-grounds ; on which account, it is likewise often planted in gardens, as an edging for borders.

The *Sea-gillflower* forming whole swards, or tufts of grassy, soft, and smooth leaves, its culture is much recommended in loose sands, which are thus speedily consolidated : the naked

stalk, in general, attains only the height of 6 inches —The plant is eaten by horses and goats, but refused by sheep.

THROAT-WORT.—See *Giant Bell-flower*.

THYME.—A genus of spicy plants, comprising 17 species, of which the following are the principal, namely :

1. The *Common Wild*, or *Mother-of-thyme*, an indigenous perennial, growing on heaths and mountainous places, where it flowers in July and August.—This plant possesses a grateful aromatic odour, and a warm pungent taste : its dried leaves, when infused in boiling water, serve as an agreeable substitute for tea : the essential oil obtained from this herb is so acrid, that farriers employ it as a caustic.—A little cotton wool moistened with it, and put into the hollow of an aching tooth, frequently mitigates the most excruciating pain.—Bees eagerly visit the aromatic leaves of wild thyme, which is likewise eaten by sheep and goats, but refused by hogs.—There is another variety of this species, cultivated in gardens, and called the *Lemon-thyme*, which has broader leaves, and a more pleasant flavour.

2. The *Wild Basil*, or *Basil Thyme*, grows on dry hills, in chalky and gravelly situations ; flowering from June to August.—This odoriferous plant is much frequented by bees, which collect honey from its flowers.

3. The *Garden Thyme*, is originally a native of the southern parts of Europe, but is now generally cultivated in British gardens. It may be propagated either by the seed, by off-sets from the roots, or by slips. planted in light, rich, and well-prepared soils : its aromatic leaves are employed in broths, and for other culinary purposes.—In its medicinal properties, this species is one of the most powerful aromatic plants ; and its essential oil is often sold in the shops, as a substitute for that of Marjoram.

TIMOTHY-GRASS.—A genus of plants, comprehending eight species, four being indigenous : of which the following are the principle, namely :

1. The *Knotty Timothy-grass*, grows chiefly on the dry, hilly, pastures in the vicinity of Bath, and flowers in the month of June.—This species, in the opinion of Mr. *Sole*, is well calculated for dairy-pastures ; as it affords a large quantity of rich milk, and is eagerly eaten by cows. It is also relished by sheep and other cattle ; though disliked by horses, where they find the meadow or fescue-grasses.

2. The *Common Timothy-grass*, thrives generally in moist pastures, and flowers in July. The culture of this grass has been strongly recommended by Mr. *Rocque*, in the 4th vol of the *Museum Rusticum et Commerciale*. According to him, it is eaten by horses and cows, preferable to any other pasture-grass ; though Dr. *Pultney* observes, that it is disliked by sheep and is not relished by horses or cows : Mr. *Sole*, and the Rev. Mr. *Sayre*,



likewise, remark that the Common Timothy-grass is very coarse, of little value for cattle, and does not deserve to be cultivated in England. Notwithstanding such diversity of opinion, we appeal to the authority of *Linnaeus*, who expressly states, that the Common Timothy-grass should be sown on lands, which have been newly drained; as it is very luxuriant, attains the height of 3 or 4 feet and prospers in wet and marshy situations. Farther, we learn from *Bechstein*, that its stalks grow to the height of 6 feet; that horses, any swine, are exceedingly partial to this grass; consequently, that it merits the attention of farmers, who wish to improve moist meadows over-grown with moss.

TOAD-FLAX.—See *Flax* the *Toad*.

TOBACCO-PLANT, THE COMMON.—Is a native of America, where considerable quantities are annually raised for exportation; and also in Spain, Portugal, Turkey, and Malta.

There are eight species of this narcotic plant, but the principal varieties are known under the names of Oronokoe, and Sweet-scented Tobacco: both attain the height of from six to nine feet; being distinguished only by their deep green leaves; the former of which are longer and narrower than those of the latter. If their culture were not restricted by the legislature (half a pole of ground only being allowed for such purpose, in physic-gardens; but, if that space be exceeded, the cultivator is liable to a penalty of 10*l.* for every rod), they might be propagated from seed, which ought to be sown towards the middle of April, in beds of warm, rich, light soil. In the course of a month, or six weeks, they must be transplanted into similar situations, at the distance of about two feet from each other. Here they should be carefully weeded, and occasionally watered, during dry weather. When the plants are about two feet high, they shoot forth branches; and, as these draw the nutriment from the leaves, it becomes necessary to top, or nip off the extremity of the stalks, in order to prevent them from attaining to a greater height; and also to remove the young sprouts, which continually shoot forth between the leaves and the stem.—No farther attention will be required, till the leaves begin to ripen; a change which is known, by their becoming rough and mottled with yellow spots, and by the stalk being covered with a species of down. The tobacco plants are now cut off closely to the roots, and exposed on the dry ground to the rays of the sun, till the leaves become wilted, or so pliant as to bend in any direction without breaking.—They are then laid in heaps under shelter, for three or four days, in order to sweat, or ferment; being turned every day; next, the tobacco leaves are suspended on strings, at a small distance from each other, for the space of a month; at the end of which they may be taken down, laid in heaps, and sweated a second time for a week, being then pressed with heavy logs of

wood. The last operation is that of picking the leaves; when they are packed in hogsheads for exportation.

*Uses.*—Various properties have been attributed to this stupefying drug, since it was first introduced into Europe, about the middle of the 16th century. Its smoke when properly blown against noxious insects, effectually destroys them; but the chief consumption of this plant, is in the manufacturers of Snuff and Tobacco, or the cut leaves for Smoking. It is likewise (though we think, without foundation), believed to prevent the return of hunger; and is therefore chewed in considerable quantities by mariners, as well as the labouring classes of people a disgusting practice, which cannot be too severely censured. For, though in some cases, this method of using tobacco, may afford relief in the rheumatic tooth-ach, yet, as the constant mastication of it induces an uncommon discharge of saliva, its narcotic qualities operate more powerfully, and thus eventually impair the digestive organs.

As a medicine, the use of tobacco requires great precaution; and it should never be resorted to without professional advice: it is chiefly employed in clysters, and as an ingredient in ointments, for destroying cutaneous insects, cleansing inveterate ulcers, &c. Lastly, indeed, Dr. *Fowler* has successfully prescribed it, in the various forms of tincture, infusion, and pills, as a diuretic, in cases of dropsy and dysury:—if one ounce of the infusion of tobacco be mixed with a pint of water-gruel, and injected as a clyster (being occasionally repeated), Dr. F. states, that it will afford great relief in obstinate constipations of the bowels.—The smoke has, for ages, been administered in the form of injection, as a sovereign remedy for the dry-belly-ach, prevalent in the West Indies.

Beside the varieties of this herb already described, there is another, termed English Tobacco, or *Nicotiana, minor v. rustica*, L. it is originally a native of America; but, having been raised in some British gardens for curiosity, its leaves are frequently substituted for the genuine drug. They possess similar narcotic properties with the Hen-bane; and may be distinguished from foreign tobacco, by the pedicles which abound on them, and also by their smallness and oval shape.

It is remarkable, that the daily smoking of tobacco, is a practice which only within the last century become general throughout Europe, especially in Holland and Germany; where it constitutes one of the greatest luxuries with which the industrious, poor pheasants, as well as the more indolent and wealthy classes regale themselves and their friends. In Britain, however, the lower and middle ranks, only appear to be attached to such fumigations; which, though occasionally useful in damp and mephitic situations, are always hurtful to persons of dry and

rigid fibres, weak digestion, or delicate habits ; but particularly to the young, plethoric, asthmatic, and those whose ancestors have been consumptive ; or who are themselves threatened with pulmonary diseases. In proof of this assertion, we shall only remark, that a few drops of the oil distilled from the leaves of this powerful plant, taken internally, have operated as fatal poison : and, a considerable portion of such oil being disengaged within the tube of tobacco-pipes, during combustion, the noxious effects of inhaling and absorbing it by the mouth, may be easily inferred.

Lastly, the ashes of tobacco may be applied to many economical purposes ; they not only extirpate those small and noxious vermin, earth-slugs but at the same time fertilize the soil, when strewed on it early in the spring.—Farther, by scattering them occasionally over the food of horses and geese, the health of these animals is said to be greatly benefited : they also afford a good tooth-powder ; a strong ley ; potash ; and an useful ingredient in the manufacture of glass.

**TORMENTIL, THE COMMON OR STEPT-FOIL.**—Is an indigenous perennial, growing in moors, barren pastures, and shady places ; flowering from June to September.—It is eaten by cows, goats, sheep and swine ; but refused by horses.

The Tormentil is propagated by planting the crowns of its bulbous roots, at the depth of one inch, and at the distance of five or six square inches.—These roots are of great utility, both in domestic and in medical economy : on account of their strong astringency, they are advantageously substituted for oak-bark in tanning, and dying leather of a red colour, with the addition of the water elder berries, and alum.—*Leyser* observes, in his *Original Botany* (7th century of his Collection of Plants, in German), that the impissated red juice of this root may be employed as an excellent substitute for the foreign drug, called Dragon's blood, in dyeing, staining, &c.—Lastly, the tormentil-root has been found remarkably efficacious in the dysentery often prevailing among cattle ; and, being one of the most astringent vegetables of our climate, it may, with equal advantage, be used for similar purposes by mankind.

**TOUCH-ME-NOT.**—See *Balsamine*.

**TOWER-MUSTARD, THE SMOOTH, OR TOWER-WORT.**—Is an indigenous plant growing in gravelly meadows, pastures, and pits, where the stalks attain the height of two feet, and the greenish-white, large flowers appear in May and June.—The taste of this vegetable resembles that of cresses : and, affording wholesome food for cattle, we conceive it deserves the attention of cultivators, in the northern parts of the island, which abound with dry, stony lands and pastures. Farther, the flowers of the towerwort supply the industrious bee with wax and honey.

**TRAVELLER'S-JOY, HONESTY, VIRGIN'S BOWER, OR**



**GREAT WILD-GLIMBER.**—A hardy, indigenous shrub, growing in hedges and shady places, in calcareous soils, where it flowers in June and July.—It is easily propagated by layers or cuttings.

The fibrous stalks of this vegetable may be converted into paper:—the whole plant is very acrid to the touch; on which account it is frequently employed as a caustic, and for cleansing old ulcers.—Both leaves and branches may, with advantage, be used in dyeing; and *Dambourney* obtained from the latter alone, a yellow decoction.—*Bechstein* observes, that the hard, compact, yellow, and odoriferous wood of this shrub, furnishes an excellent material for veneering.

**TREE-MALLOW, THE SEA, OR VELVET-LEAF**—An indigenous biennial, growing on the sea-shores, where it flowers from July to October.—This being the only native species of eleven plants, belonging to the same genus, we shall briefly remark, that all the Tree-mallows deserve to be more generally cultivated, both in gardens and fields; not only for their elegant flowers, which abound with honey, but chiefly for the valuable material obtained from their fibrous stalks:—We learn from *Bechstein*, that such stalks may, with equal advantage, be converted into paper, and pack-thread or bass, serving as a substitute for hemp.

**TREFOIL.**—A genus of fifty-five species, 16 of which are indigenous: of these we shall mention the following.

1. The Common Clover.
2. The Red Perennial Clover.
3. The Hop-clover, or Hop-trefoil; and
4. The White Clover.—See Clover.
5. The Melilot-trefoil.—See *Melilot* the Common.
6. The Hare's-foot Trefoil, grows in sandy pastures, corn-fields, and chalky situations; where it flowers in July and August. This species is strongly aromatic; and, when dried, retains its odour for a considerable time:—it affords a grateful food to cattle; and is, by *Bechstein*, recommended as a valuable substitute for oak-bark, in tanning leather.
7. The Strawberry Trefoil, thrives in moist meadows, chiefly in the vicinity of London, where it flowers in August.—This perennial vegetable is industriously cultivated by the Greenlanders, who propagate it by seed, and also transplant the stalks, which thus attain the height of seven feet. Its whitish and reddish flower-heads are nearly globular, and slightly compressed on the upper surface. The whole plant affords as nutritive food to cattle as the Common or Meadow-clover.

**TREFOIL, THE COMMON BIRD'S-FOOT.**—An indigenous perennial, growing in meadows, pastures, heaths, and road-sides, where it flowers from June to August.—This plant is eaten by cows, goats, and horses; but, according to *Linnaeus*, is not re-

lished by swine or sheep; though it is propagated in Hertfordshire as pasturage for the latter animals.—Dr. *Anderson* strongly recommends it to be cultivated for cattle; and Mr. *Woodward* remarks, that it may be raised to great advantage; as it attains a considerable height in moist meadows, and makes good hay.—Its flowers when dried, acquire a greenish cast; in which respect, they resemble those of the plants producing Indigo: it is, therefore, probable, that they may be advantageously employed for obtaining a substitute for that expensive dyeing material.

According to *Bradley*, an infusion of the seeds, flowers, and leaves of the Common Bird's-foot, in wine, operates as a diuretic; and at the same time tends to allay the irritation of the urinary canal.

**TRUFFLE, OR TRUBS.**—Is a species of puff-ball, which grows under ground, without any roots or the access of light; and attains a size of from a pea to the largest potatoe. In Britain, however, it is of a globular form, resembling that of a large plumb; and, when young, its surface is whitish; being interspersed with elevated dots, the centre of which contains a brown powder, similar to that of the common Puff-ball: as it becomes old, the colour turns black.—This species of fungus may be searched for in hilly forests, which have a sandy or dry clayey bottom, at the depth of four or five inches in the earth; though it seldom exceeds four or five oz. in weight, while those produced on the Continent, frequently weight from eight to sixteen ounces. It is one of the most wholesome and nutritive of the esculent fungi, and is generally discovered by means of dogs, which are taught to scent it; so that, on smelling the truffle, they bark, and scratch it up.—In Italy, it is likewise rooted up by pigs, which are either furnished with a ring around their snout; or, it is taken from them by an attendant.

Truffles are highly esteemed at the tables of the luxurious, where they are served up, either roasted in a fresh state, like potatoes; or, they are dried, sliced, and dressed as ingredients in soups and ragouts. The most delicious are internally white, and possess the odour of garlic.—They pay, on importation, a duty of 2s. 5½d. per lb.

**TUBE-ROOT.**—See *Meadow-Saffron*.

**TULIP.**—A genus of plants comprising four species, the principal of which is the *Gesmeriana*, or Common Garden Tulip, a native of Cappadocia.—It is divided into two sorts, termed the early, or dwarf spring tulips, which blow in the beginning of spring; and the late flowering tulips, that appear about the latter part of April, or in May and June. Both sorts comprehend numerous varieties, such as black, golden, yellow, purple-violet, rose, vermillion, &c. from their respective colours. They

are highly valued by the curious in horticulture, and sold by florists at from 5s. to 20l. per root, according to their rarity, or the degree of estimation in which they are held.—In Holland, they form a considerable article of trade; and there are instances of single bulbs of these flowers having been purchased at the extravagant price of from 2000 to 5000 guilders.

Tulips furnish one of the principal ornaments of the garden: they are propagated by planting offsets from the bulbous roots, in common garden soil, either in autumn, or towards the end of December, according to their early or late periods of flowering; and, if such soil be changed every year, new varieties, both of single and double tulips, beautifully diversified with various colours, easily be obtained: these plants require only to be sheltered, during the severity of winter; to be kept clear of weeds; and to be watered occasionally in the long droughts of summer.

There is an indigenous species of this plant, termed the *sylvestris*, or Wild Tulip, which grows in chalk-pits; and is found chiefly in the vicinity of Norwich, and Bury; where its small fragrant yellow flowers blow in the month of April. The fresh root is acrid, and excites vomiting; but, when boiled, it may safely be eaten with the addition of butter and pepper; affording a palatable dish.

**TURNEP, TURNIP, OR KNOLLES.**—An indigenous biennial plant, growing in corn-fields, and chiefly in their borders; where it flowers in the month of April.

There are many varieties of the turnip, which are cultivated, both for feeding cattle, and for culinary purposes; but we shall enumerate only the principal, namely:

1. The *Oval, Common White-stock, or Norfolk Turnip*.
2. The *Large Green-topped Turnip* attains a considerable size, and is very sweet and soft; but, growing above the ground, it is liable to be injured by severe frosts.
3. The *Purple-stock* resembles the first variety, excepting that its size is somewhat smaller; the rind is of a dark-red or purple colour; and its pulp is also more close and firm, than that of the Common Norfolk turnip. It withstands the severity of winter, without receiving material injury, and is more succulent in the spring; but, not being relished by cattle so well as either of the two preceding varieties, it is not generally cultivated.
4. The *Swedish turnip*, is one of the most valuable roots of the kind. Its inside is either white or yellow; which colour, however, does not effect its quality: it is more hardy than either of the preceding varieties, and suffers no injury from the most intense cold.—As this turnip, when allowed to seed near the Oval, or Norfolk white, produces numerous varieties; it has been conjectured, that a new sort may, by a judicious intermixture, be obtained, which will probably acquire from the one, a sufficient



degree of hardness, to resist the winter; and, from the other, an increase of size, as well as a quicker growth.

5. The *Hastings* is a new variety, imported, several years since, from Tibet, in Asia, by Governor *Hastings*.—This plant has not been hitherto cultivated to any extent; but it appears, as far as we can ascertain, to be one of the most wholesome and profitable roots of this species.

Turnips in general, succeed better in light soils, consisting of a mixture of sand and loam, than in very rich or heavy lands:—the crops of the latter will be rank, and run to flower at too early a period of the spring; though their weight may not be perceptibly diminished.

These roots are raised from seed, which ought to be changed annually, or every second year, without exception; as it is apt to degenerate, and the quality of the roots will consequently be impaired. The season for sowing, varies according to the time of feeding: thus if the turnips be intended for feeding cattle from December to February, the seed must be committed to the ground from the middle of May to the end of June; but in case they be designed to supply food till May, it should not be sown before the latter end of July, or early in August.

Turnip is one of the most valuable roots raised for culinary, or economical purposes.—Its young tops, when boiled, afford a good substitute for greens; and, though nutritive, they are somewhat flatulent; which property may, however, be corrected by the addition of pepper and vinegar. More wholesome, and easy of digestion, are the *Swedish Turnips*; but they should not be long kept in heaps; being thus apt to become rank, and, consequently still more indigestible.—Mixed with wheaten flour, and, properly baked, the Swedish Turnip, furnishes a nutritious kind of Bread.

Lastly, the roots of turnips being of such extensive utility, different means of preserving them from frost, and decay, have been contrived; and of which the following appears to be the most successful. After drawing the turnips in February, and cutting off the tops and tap-roots (which may be given to sheep), Mr. *Varro* directs them to be exposed on dry soil, for a few days: a layer of straw should next be spread on the ground; and, on this, a stratum of turnips, about two feet thick: other layers of straw and roots are then to be formed alternately, till the top be carried to a point; the edges of the straw being turned up, to prevent the turnips from rolling out. The whole should now be covered with straw, which will serve as a thatch; one load being sufficient for 40 tons of roots. Thus managed, the turnips will be effectually sheltered against the frosts; and may, for several months, be kept in a sound state.

TUTSAN, OR PARK-LEAVES.—Is an indigenous perennial,

growing in goods and moist hedges, where it flowers from July to September.—This vegetable deserves to be more generally known; as it may be advantageously employed for the preservation of Cheese, by placing the leaves when moderately dry, upon, or by the sides of the cheese, in an airy situation. Farther, as the leaves of the Tusan assume a red colour, and sometimes yield a red juice, we conceive, they might be converted to some useful purpose, either as a pigment, or dyeing material; in the following manner: Take the roots, leaves, or flowers of what ever quantity is desired, bruise them nearly to a pulp, put them into a glazed earthen vessel, pour a sufficient quantity of filtered water over them, and add a table spoonful of a strong solution of pure pot-ash to every pint of the former. Boil the whole over a moderate fire, till the liquor is evidently saturated with the colour afforded by the vegetable; then decant the fluid part, either through blotting paper, or cloth, and gradually drop into it a solution of alum, when the colouring matter will subside at the bottom. This powder should again be washed in several fresh waters, till they pass away perfectly tasteless: at length, it must be once more filtered through paper, and the remaining substance perfectly dried. From this preparation are afterwards manufactured the finest pigments, or water-colours, of the shops, by tirturating them on marble stones, with the addition of a little clarified gum-water, and then forming them into cones, cakes, &c.—The Dutch prepare pigments of the most beautiful shades, for instance, a very fine azure blue, from the blossoms of the corn blue-bottle: a delicate red, from the fresh leaves of roses, especially the small French rose;—an excellent violet from the flowers of that name, by the above process.

VALERIAN.—A genus of plants, comprehending 22 species; 4 being indigenous, and of which the following are the most remarkable:

1. The LETTUCE VALERIAN.—See *Corn Salad*.

2. The *Great Wild Valerian*, is perennial; grows in hedges, woods, and marshes; where it flowers in the month of June. The leaves of this vegetable are eaten by cows, but are not relished by sheep: its roots are very grateful to cats, and particularly to rats; on which account they are frequently employed by rat-catchers, for enticing those vermin. And, though the roots of this plant have a strong, disagreeable smell, and a bitterish, sub-acrid taste, yet they are successfully given in hysterical cases, either in the form of an infusion, or in powder; and have also occasionally proved beneficial in obstinate epilepsies.—*Bergius* recommends them as diuretic, sudorific, and vermifuge.—*Dr. Withering* remarks, that they are an excellent medicine in cases of habitual costiveness, having afforded relief, where stronger purgatives were ineffectual. The dose varies from 1 to 2 drams, in

the form of an infusion; or from 1 scruple to a drachm of the powder to adults.

VENUS-COMB.—See *Needle*, the Common Shepherds's.

VERNAL-GRASS.—See *Spring-grass*.

VERVAIN, THE COMMON, OR SIMPLERS JOY.—An indigenous plant, grow in waste places, on stone walls, and the sides of roads; flowering in the months of August and September.—This plant is eaten by sheep, and its flowers are visited by bees. The roots impart a very agreeable taste to pickled cucumbers.—Among the ancients, the Simplers Joy was dedicated to *Isis*, the goddess of birth; and, though at present exploded in medicine, *Hoffman* asserts, that the most inveterate and violent head-ach may be cured, by filling a bag with the leaves of Vervain, in a dry state, and applying it around the throat of the patient.

VETCH, OR TARE.—A genus of plants comprehending 30 species, of which 8 or 9 are indigenous; and the following are the most remarkable, namely:

1. The *Wood Vetch*, grows in woods and hedges, especially in mountainous situations; where it flowers in July and August, attaining the height of from two to four feet.

2. The *Tufted Vetch*, is frequent in shady places, meadows, and fields; flowers in the months of July and August.—Both, this and the preceding species, are said to restore weak or starved cattle to their former strength, more speedily than any other vegetable hitherto discovered.

3. The *sepium*.—See *Bush Vetch*.

4. The *Common Vetch*, *Fetch*, or *Tare*, thrives dry meadows, pastures, and corn-fields, where it flowers from April to June. This species is one of the most valuable of the Vetch kind, and is divided into three varieties, namely:

1. The *Summer Vetch*, is raised from seed, which is usually sown toward the end of March, or early in April, in the proportion of 8 or 10 pecks per acre, broad cast; though, when drilled, half that quantity is sufficient, and the crop will be greatly superior. This variety is chiefly propagated and used for weaning lambs and sheep, as well as for soiling horses and cows: its seeds afford an excellent food for pigeons.—Bees obtain a copious supply of honey from the young leaves of this plant, which are marked with black, and the spots of which contain a delicious saccharine juice.

2. The *Winter Vetch*, is sown in the month of September, in the same proportions as the preceding sort; a small quantity of beans, or (which is preferable) of black oats, being intermixed, to support the plants; which are generally covered with a long dung, to preserve them from the frost.—This variety is subservient to the same purposes as the Summer Vetch: when ploughed into chalk-lands in the month of May, it serves as an excellent



manure for wheat intended to be sown in the succeeding autumn. In the county of Gloucester, the Winter Vetch is cultivated as pasturage for horses, and is eaten off so early, as to admit of turnips being raised in the same year.

3. The *Pebble Vetch*, is sown in the spring, but is seldom cultivated; because it is less hardy than either of the preceding varieties, and does not produce an equal quantity of fodder.

5. The *Strangle Vetch*, or *Tare*, abounds in dry pastures, gravel-pits and corn-fields, in chalky and sandy soils; where its small blueish-purple flowers appear in the month of May. Its culture should be encouraged in sloping grounds, and sandy hills exposed to the sun; as it affords the most tender and agreeable food to sheep.

Beside the different kinds above enumerated, there is another called the Chinese Vetch, which was a few years since introduced into England: its culture is at present confined chiefly to the county of Glamorgan, where it grows in tufts, from 18 to 24 inches in height. This species promises to be very profitable to agriculturists; as it is said to yield four crops in the year, and to afford food excellent for cattle, both in a fresh state, and when made into hay.

**VETCH, THE BITTER, OR WOOD PEASLING.**—An indigenous perennial, growing in woods, hedges, and pastures, especially in mountainous situations; where it flowers from May to July. This hardy plant is chiefly cultivated in gardens, for the beauty of its numerous blossoms; either by sowing it in autumn, or by dividing the roots: the latter being very nutritious, are in Scotland applied to the same uses as those of the Heath Pea.—The leaves of the Bitter Vetch are much more relished by cattle, and especially by game.

**VETCH, THE CHICKLING, OR VETCHLING.**—A genus of plants consisting of 13 species, 7 being indigenous; and the principal of these are:

1. The *Yellow Vetchling*, grows in sandy corn-fields, and meadows, where its greenish-yellow flowers appear from June to August.—Dr. *Withering* remarks, that the leguminous fruit of this, as well as the other species of Vetchling, are very nutritious, and may be eaten either in broth, or be converted into bread; though a larger proportion of wheaten or rye-flower be required for such purpose.

2. The *sylvestris*.—See *Pea*, the Narrow-leaved Everlasting.

3. The *Everlasting Tare*, *Common Yellow*, or *Meadow Vetchling*, which abounds in pasrure-lands, in woods, thickers, and hedges; it grows to the height of 6 feet; flowers in July and August. This species is reputed to be an useful vegetable in the feeding of cattle: though Mr. *Swayne* remarks, that they seldom eat it if there be a variety of other grasses in the same field; and, as it produces

few seeds, which are mostly devoured by insects, it does not appear to merit attention. Nevertheless, *Bechstein* observes, that the Yellow Vetchling, both in a fresh and dry state, affords excellent food for cattle in general, and therefore deserves to be cultivated in meadows.

4. The *Broad-leaved Vetchling*, or *Everlasting Pea*, is frequent in woods and hedges; flowering in the months of July and August. It is often raised in gardens, chiefly for the beauty of its variegated flowers; but Dr. *Anderson* believes it may be useful to the farmer; and, as it attains the height of 10 or 12 feet, having very strong stalks, he supposes that it would afford a large-crop of hay.

There is an exotic species of the Chickling, namely, the tuberosus, which the Germans term *Earth-nut*, or *Sow-bread*; growing in stony and mountainous fields:—this plant is a valuable addition to meadows; not only on account of its odoriferous flowers, which blow from May to July, and are eagerly frequented by bees: but also for its black tuberosus roots, which are in Holland eaten as fruit, and boiled for culinary use; having the sweet and agreeable taste of nuts. These roots contain a larger proportion of mealy particles than potatoes: and *Birgus* extracted from one pound of *Earth-nuts*, three ounces of a beautiful white starch; whereas the same quantity of the former yielded only one ounce. Why, therefore, should it not be used for bread?

VETCH. THE CORN, WILD, OR HAIRY TARE, TINE-TARE, OR ROUGH-PODDED TARE.—An indigenous plant, growing in sandy corn fields, hedges, and meadows, where it flowers in the month of June.—This vegetable is eaten by horses, cows, goats, and sheep; but it ought to be carefully eradicated; as during wet seasons, whole crops of corn have been overpowered, and their growth completely stifled, by this pernicious weed.

VINE.—the Wild. See *Bryony* the White.

VIOLET.—A genus of plants, consisting of 44 species; of which the following are the principal:

1. The *Dog's Violet*.
2. The *Heart's-ease*.
3. The *Sweet Violet*, is perennial; grows in warm lanes, hedges, and ditch-banks, especially in clayey or marly soils; flowers in the months of April and May.—Both the blossoms and seeds of this plant are mildly laxative; and, when taken in doses of from 40 to 80 grains, the powdered root operates as a purgative, and likewise as an emetic.—Large quantities of violets are cultivated at Stratford-upon-Avon, for their petals, to impart the colour to syrup of violets; an officinal preparation of which is kept in the shops, and proves an agreeable and useful laxative for children. Such syrup may also be employed in many chemical inquiries,

for discovering the presence of an acid, or an alkali; the former changing the blue colour to a red, and the latter to a green; though slips of white paper, stained with this juice, and preserved from the access of air and light, may serve as a substitute for that purpose.

VIPER'S BUGLOSS, THE COMMON.—An indigenous biennial, growing in sandy corn-fields, walls, and rubbish, particularly on the clay thrown out of coal-mines: it flowers from June till August.—This vegetable is not relished by cows, and is refused by horses and goats; but its strong hairy flowers are fondly visited by bees.—From the flower-salks, *Dambourney* obtained a dye of a fine olive-green shade.

WAKE-ROBIN, CUCKOW-PINT, OR LORDS AND LADIES.—A native and hardy perennial, growing in shady places, ditch-banks and rough grounds; flowering in May and June.

Both the bulbous root, and the leaves of this vegetable, in a fresh state, are extremely acrid. Nevertheless, the former has sometimes been used internally as a powerful stimulant, and externally as a substitute for blisters. When dried and pulverized, these roots lose all their acrimony, and afford an almost tasteless farinaceous powder. According to Dr. *Withering*, good bread may be prepared from them, as well as an excellent starch.—The French manufacture from the same root, when properly dried and reduced to powder, a harmless cosmetic; which is sold under the name of cypress-powder. Such preparation may also, and, we conceive, with greater advantage be used in domestic economy, instead of soap.

WALL-CRESS, THE COMMON, OR CODDED MOUSE-EAR.—An indigenous plant, growing on walls, roofs, and in dry, sandy pastures: it flowers in the month of May.—The Wall-cress seldom exceeds the height of 4 or 5 inches; it produces small white blossoms, which are succeeded by long slender pods, containing minute round seeds.—This plant is said not to be relished by sheep, and is wholly refused by hogs; but we are informed by *Bechstein*, that sheep are so remarkably partial to the Coddled Mouse-ear, as “to run after it.”

WALL-PEPPER.—See *Pepper-Stone-crop*.

WALL-WORT.—See *Dwarf-Elder*.

WALNUT-TREE.—A genus of exotic trees comprehending 8 species; the principal of which is the Common Walnut-tree. It is originally a native of Persia, and attains, in this country, the height of from 50 to 60 feet; having a beautiful erect trunk, that branches out into a large spreading crown, which is furnished with pinnated leaves. There are numerous varieties, generally raised for their palatable fruit, which ripens from the beginning of September till the end of October; but the most esteemed are



the Double Walnut, the Large Walnut, the French Walnut, the Thin-skinned, and the Late Walnut.

The Walnut is equally valuable as a timber, and as a fruit-tree. Its wood was formerly often employed both for building and in the manufacture of household-furniture; but, being very brittle, it is at present superseded by mahogany, and other foreign timber. Nevertheless, it is highly prized by joiners and cabinet-makers, for tables, gun-stocks, and other light articles; as it is beautifully veined, and admits of a fine polish. Farther, these trees are well calculated for planting them in the borders of orchards; because their large spreading heads shelter the smaller, and more weakly fruit-trees, from the effects of boisterous winds:—an infusion of their leaves in boiling water, mixed with soap-suds, urine, and limewater, has, according to Mr. *Fobsyth*, been found very efficacious in destroying worms, and slugs in the ground, as likewise for exterminating insects on trees.

The fruit of the Walnut-tree is used at two different periods of its growth, namely, when green, for pickling, and in a ripe state, at the desert. For the former purpose, the nuts are fit in July or August, when they are about half, or three-fourths grown; but those only which are free from spots, should be selected, and plucked off the trees carefully by the hand.

The properties of walnuts agreeing with those of Almonds, and Hazel-nuts, the reader will revert to these articles, in the alphabetical order.

**WART-WORT, CHURN-STAFF, CAT'S-MILK, OR SUN-SPURGE.**—An indigenous plant, flowering in gardens, corn-fields, and cultivated grounds; flowering in July and August.—This vegetable, though eaten by cattle and sheep, imparts to the flesh of the latter animals a disagreeable flavour, and is also detrimental to their health.—The milky juice exuding from the stalk, tinges paper of a fine azure-blue colour.

**WATER-AGRIMONY.**—See *Agrimony* the *Hemp*.

**WATER-ALOE, OR FRESH-WATER SOLDIER.**—An indigenous perennial, growing in fen-ditches and slow-streams; flowering in the months of June and July.—This plant affords nourishment to a great variety of insects, some of which pursue it even to the bottom of the water.—It is eaten by hogs, but refused by goats.—From its ashes, an excellent alkaline salt may be obtained, by filtrating and evaporating the ley.—*Bohmer* observes, that such salt is not only well adapted to the curing of beef and other meat, but also forms a valuable ingredient in the manufacture of glass; nay, that it is occasionally used in England as a substitute for pot-ash, in the process of making soap.

**WATER-CALTROPS.**—A valuable exotic, originally from Asia, though likewise growing wild in the ponds and ditches of Germany: its fibrous roots strike deeply into the soil; and,

when the stalk attains the surface of the water, its extremity presents a pyramidal bud, which, on the access of air, unfolds and spreads the convoluted leaves.—The plant flowers in June or July; and produces its excellent fruit in August or September.

Although the water-caltrops be, on the Continent, considered as a troublesome weed in lakes and fish-ponds, yet we are persuaded that it may, with great advantage, be introduced into many marshy situations, especially those destitute of fish; to which animals it is certainly pernicious. The kernal contained in the nut of this aquatic vegetable, may be eaten, either raw or boiled; when dried and reduced to flour, it affords one of the most nutritive ingredients in broths, puddings, and other culinary dishes. *Pliny* informs us (book xxii. chap. 12,) that the ancient Thracians converted this fruit into bread and fed their horses with the leaves.—Formerly, the black roots of this luxuriant plant were reputed to be poisonous; but it has lately been ascertained, that the Japanese boil and eat them, generally, in their daily soups.

WATER-CAN.—See *Yellow Water-Lily*.

WATER-COWBANE.—See *Hemlock*, the long-leaved Water.

WATER-CRESS.—See *Cress*.

WATER-DOCK.—See *Dock*.

WATER-FLDER.—See *Common Guelder-rose*.

WATER-GLADIOLE, or CARDINAL FLOWER.—Is an indigenous perennial, growing in mountainous lakes, especially in Cumberland, Westmoreland, Wales, and Scotland; where its beautiful pale, blue flowers appear in the months of July and August.—The whole of this plant, which grows beneath the surface of the water, abounds with a milky juice. It may be easily propagated by seeds, by offsets, or by cutting; and, vegetating with great luxuriance, it deserves to be raised in moist or marshy situations.

WATER-HEMLOCK.—See *Hemlock*, the Water.

WATER-HEMP.—See *Agrimony*, the Hemp.

WATER-LILY.—See *Lily*, the Water.

WATER-MOSS.—See *Moss*.

WATER-PARSNEP.—See *Parsnep*, the Water.

WATER-PEPPER, LAKEWEED, or BITING SNAKEWEED.—An indigenous plant, growing on the sides of rivulets, lakes, and ditches; flowering from July to September.—The whole of this vegetable possesses a very acrid taste; its fresh leaves have, nevertheless, with advantage been applied externally, for cleansing old fistulous ulcers, and consuming fungous flesh. An infusion of these leaves is said to promote the urinary discharge in phlegmatic habits; and has frequently been of service in scorbutic complaints. When mixed with soft soap, the the ashes of the lake-

weed are used, as a nostrum, for dissolving the stone in the bladder.—According to Dr. *Withering*, the accrimony of this herb rises on distillation; and 2 or 3 half pints of the water, drunk daily, have been found very effectual in some nephritic cases. It imparts a yellow colour of wool. The Water-Pepper is refused by every species of cattle.

WATER-RADISH.—See *Radish-Water-cress*.

WATER-SOCKS.—See *White Water-Lily*.

WATER-TREFOIL.—See *Trefoil-Buckbean*.

WAY-BENNET.—See *Wall-Barley*.

WAY-BREAD.—See *Greater Plantain*.

WAYFARING-TREE.—See *Mealy Guelder-rose*.

WEASLE-SNOUT; YELLOW ARCHANGEL, or YELLOW DEAD-NETTLE.—Is an indigenous perennial, growing in woods, shady places, and moist hedges; blowing in the month of May. The flowers of this plant afford to bees an abundant supply of honey.

WELSH BISTORT.—See *Bistort*, the Small.

WELD.—See *Dyer's-weed*.

WHEAT.—A genus of plants, comprehending about 16 species, of which the following are the principal:

I. See *Dog's-Grass*.

II. The Spring Wheat, is probably a native of Southern Siberia and Sicily, whence its culture has been gradually dispersed throughout Europe: it ripens about the same time as the winter, or common wheat, even though it be sown in February or March. This species is divided into the following varieties, namely:

1. The Spring-wheat, with a red spike or ear, and grain.
2. The Red Spring-wheat, with a white ear.
3. The Spring-wheat, with a white spike and grain. These, and all other varieties of the same species, are beardless, and may be sown from the end of February till early in May. They are not easily affected by moisture, or severe frost, and afford excellent starch.

III. Winter or Common Wheat, is principally raised in Britain: its grains are somewhat fuller than those of the preceding species; and its chief varieties are:

1. The Common Wheat, with a red ear and grain.
2. The Common Wheat, with a white ear.
3. The Winter Wheat, with white ears and grains.—These varieties are also destitute of beards, and should not be sown earlier than in September, nor later than in November.—They produce the most valuable wheat, which yields the largest proportion of flour.

IV. The Thick-spiked, or Cone Weat, each plant bearing from four to eight ears, and each of the latter from 30 to 70



grains : it differs from the preceding species, both in its bearded ears, and its small plump grains, which are more convex on the back than those of the Spring or Winter Wheat.—The principal varieties are :

1. The White Cone Wheat.

2. The Red Cone Wheat.

3. The Large-bearded Cone-wheat, Clog-wheat, Square-wheat, or Rivets.

4. The many-eared Cone-wheat.—These varieties are well-calculated for strong, damp, soils ; but the corn is apt to lodge, if it be sown too closely. Its grain is said to be productive of more flour than any other sort of wheat, though it is much browner, and of an inferior quality.

V. The Polish Wheat, resembles the preceding species ; but its stalks attain the height of 5 or 6 feet ; the leaves are white-striped, from 12 to 24 inches, and the ears 6 inches, in length. This noble grain is not cultivated to any extent in Britain, though remarkably fruitful, and yielding abundance of flour. It ought to be sown sparingly ; as it is apt to lodge, in consequence of which the quality of the corn is impaired.

VI. The Spelt or German wheat, is principally raised in that country, and nearly resembles barley : though its stalks are shorter. In Thuringia, it is generally sown about Michaelmas, in stony mountainous lands, which are otherwise fit only for oats. In France, Swabia, Franconia, and on the banks of the Rhine, it is more extensively cultivated, even in better soils. It is well known in commerce, that the incomparable Nurenbérge and Frankfort starch and flour, are solely obtained from Spelt-wheat. Hence, we are induced to recommend its culture in the northern parts of this island, which abound in rocky pasture grounds, especially in Scotland, where they are often rented at 1s. 6d. per acre. We must, however, remark that this excellent grain cannot be divested of its husks by thrashing, and that it requires the operation of a mill for that purpose ; but it ought to be sown or drilled together with the husks.

VII. The Siberian spring wheat, has but lately been introduced into Britain : it attains to maturity as early as the common spring wheat, and increases in the proportion of 25 to one.

VIII. The Switzerland spring wheat, ripens a fortnight earlier than the common sort of that season.

IX. The Egyptian wheat is remarkable for its uncommon fruitfulness : its straw is strong and tough, whence it has received the name of reed-wheat. The grains, however, do not yield so large a proportion of flour or meal as any of the preceding species or varieties ; and the flour is scarcely superior to that obtained from the finest barley.

X. The Zealand wheat is chiefly raised in the county of

Sent: the straw is long and tough, resembling reeds; the ears are large; the grains white, and full-bodied.—This species is well calculated for poor soils; for, it is apt “to run up to straw.”

Lastly, there is a species of spring wheat, cultivated in the island of Jersey, and which is termed Froment Tremais; being only three months in the ground: its ears and grains are small, but yield a nutritious flour.—Like the cone-wheat, the last seven species are furnished with long beards.

The white, or spring and summer wheats, flourish best on light soils, while the other kinds and varieties are more advantageously raised on strong lands. The ground, however, ought previously to be well tilled and pulverized: thus, if a crop of wheat be taken after clover has been ploughed in, it will prove uncommonly fine and abundant.

This proper period for reaping wheat, is by no means ascertained; some farmers asserting that it is most advantageous to cut the grain before it is perfectly ripe, while others are of opinion, that it ought to stand till nearly ready to be reaped and housed. The anonymous author of the “*Farmer’s Calendar*,” observes, that the safest way is that of adopting a middle course, with a particular regard to a fair time. If, however, there be any appearance of blight, Mr. *A. Young* thinks, that farmers cannot cut their wheat too early. He remarks, that the green state of the straw is no indication that the grain is immature; because the straw or blighted corn never acquires a bright yellow colour; but remains green till it becomes black. When the stalk is in this condition, the circulation of the sap ceases; and the grain daily decreases in size. He, therefore, advises the wheat to be cut; laid down on the stubble; exposed to the dew; frequently turned; and, when perfectly dry, the grain may be tied up in sheaves, and carried to the barn. Thus, thousands of bushels may be annually saved, that might afford good marketable grain; part of which would otherwise never be thrashed out of the ears, while the remainder would be so light and brittle, as to be dispersed in winnowing: the straw will at the same time be tough, and fit for thatching; whereas, without adopting such method, it could not fail of being beaten to pieces in thrashing.

WHEAT, the Cow.—See *Cow-wheat*.

WHINS —See *Furze* the Common.

WHITE-BEAM.—See *Hawthorn*.

WHITE-BOTTLE.—See *Spatling-poppy*.

WHITE-ROT.—See *Penny-wort*, the Marsh.

WHITLOW-GRASS, the COMMON, or NAILWORT.—A native plant, growing on walls and in dry pastures; blowing in the months of March and April. According to Dr. *Withering*, the Nailwort is one of the earliest flowering plants, and may be used as salad. It is also eaten by horses, sheep, and goats; but

not relished by cows, and is totally refused by hogs.

WORTLEBERRY, the Red.—See *Bilberry*.

WILD-BRIAR.—See *Dog-rose* the Common.

WILD-PARSLEY.—See *Milk-weed*, the Marsh.

WILLOW PEAR-TREE.—See *Haw-thorn*.

WILD-PANSY.—See *Silver-weed*.

WILLOW.—A genus of trees comprising 42 species; 22 being indigenous, of which the following are the principal:

1.—See *Osier*.

2.—See *Sallow*.—Besides the purposes to which this species may be applied, according to our account, of the *Sallow*, its soft, flexible, white, and smooth wood, is used for making handles to hatchets, prongs, spades, and other rural implements: it also furnishes shoe-makers with cuttings and whetting-boards, on which they cut leather, and sharpen the edges of their knives.—In Sweden, the young bark is not only used for tanning, but also, in combination with that of the alder-tree, for dyeing line-yarn of a fine black colour.

3. The *Rose, Purple, or Red Willow*, grows in hedges, watery places, and the sides of rivers, where it blossoms in the month of April or May. Its long, slender, and flexible shoots, are manufactured into baskets, cradles, and other articles of wicker-work.—This species eminently deserves to be cultivated in the sandy banks of rapid streams; as it is one of the most useful trees for consolidating loose soils, and even drift-sands.

4. The *Smooth Willow*, grows to the height of from 6 to 10 feet, in moist woods, hedges, and the banks of rivers; flowers in the month of April.—Its bark, in doses of from one to two drachms, has been successfully employed in agues.

5. The *Sweet, or Bay-leaved Willow*, is found in forests and hedges, principally in the North of England, where it flowers in April.—The wood of this species remarkably crackles in the fire; the young shoots are eaten by sheep and goats; the leaves afford a yellow dye; and the pliant branches are converted into hampers, or larger kinds of baskets.—For medicinal purposes, the bark from young trees is even preferable to that of the preceding species.—Lastly, the down of the seeds, when mixed with one-third part of cotton, has been found to be an useful substitute for that vegetable wool, in the manufacturing of stockings, and other articles.

6. The *Golden, or Yellow Willow*, abounds in osier-holts, and flowers in May. Its shoots are used by cradle or basket-makers; its white, tough, pliant twigs, are employed by nursery and gardeners, for tying up the branches of wall and espalier-trees.—The wool surrendering its seed-vessels, when mixed with cotton, affords excellent yarn for various manufacturing purposes.

7. The *Almond leaved Willow*, grows on the banks of rivers,



where it flowers in April or May ; and a second time in August. —The tough branches of this species are employed like those of the preceding.

8 The *Crack Willow*, attains a considerable height in moist woods, hedges, and on the banks of rivers ; it blossoms in April or May. This tree grows with uncommon luxuriance, and will admit of being cropped every year : it has received this name from the remarkable brittleness of its branches ; which, if stricken with a finger, break off at the shoot of the current year. The bark of these branches, possessing uncommon bitterness and astringency, has been recommended as a substitute for the Peruvian : it is certainly preferable to that of all other native trees ; and, if given in doses about one-third exceeding the proportion of such expensive drug, it may, with advantage, be used where the latter is indicated. When administered in powders, of from one to two drams, it has also proved efficacious in removing intermitted fevers. On account of its early blossoms, which are very grateful to bees, it should be raised near their hives :—a decoction of the roots imparts a reddish-brown colour.

9. The *Herbaceous Willow*, is the smallest tree of the willow-kind ; its stem not exceeding 2 feet in height, and the branches being scarcely one foot long. It grows in moist, mountainous situations, chiefly on the sides of Snowdon, and the mountains of Westmoreland, Yorkshire, and Scotland ; where its yellow flowers appear in July.—This species is, according to *Hoffman*, fondly eaten by horses and other cattle.

10. The *Red Willow*, is a very scarce species, being found wild only in the Osier-holt between Maidenhead and Windsor : it flowers in the month of May. There is a variety of it, known under the names of the Norfolk, Hertford, Hereford, and Broad-leaved, Red-hearted Huntingdonshire Willow, which may advantageously be planted in moist situations, on account of the luxuriance and rapidity of its growth. The tough, light wood of this tree is employed for gates, hurdles, and other agricultural implements : the pliant twigs are in great request for making baskets, cradles, and also for tying up wall fruit-trees.

11. The *Sallow-willow*, is the most common of the kind, abounding in moist hedge-rows, and woods ; where it attains the height of more than six feet, and blossoms in April.—This species is chiefly remarkable for its beautiful flowering branches, which are gathered about a week or ten days before Easter, and sold under the name of palms.

12. The *White or Common Willow*, abounds in woods, hedge-rows, in wet meadow, and pasture-grounds, where it attains a considerable size ; flowering in the month of April.—Its blossoms are eagerly visited by bees ; its leaves and young shoots are eaten by horses, cows, sheep, and goats :—the wood is employed in

making poles, hoops for casks, stakes, and likewise for fuel :— the bark communicates a cinnamon colour to yarn, and is not only advantageously used in tanning leather, but has also, like that of the Crack and Smooth Willows, been successfully administered in agues.—The Rev. Mr. *Stone* (“Philosophical Transactions of the Royal Society,” vol. liii.) directs such bark to be gathered in the summer, when it abounds with sap; to be dried in a moderate heat; and to be taken in doses of one dram, every 4 hours, between the fits: in a few obstinate cases, Mr. S. found it necessary to mix one-fifth part of Peruvian bark with that of the Common Willow.—As this tree frequently grows in wet, marshy situations, where agues are most prevalent, its bark promises to afford a valuable substitute for the foreign drug, especially as the price of the later has lately been so exorbitant, that the poor cannot easily procure it; while its quality becomes every year more impaired, by base and fraudulent adulterations.

Besides these indigenous species, there are two exotics, which deserve to be mentioned :

1. The *Weeping-willow*, is a native of the East, whence its culture has been introduced into Britain, It flourishes by the sides of rivers, attaining to a considerable size; and its long, depending branches, contribute greatly to diversify the scenery: it is raised chiefly for ornament.

2. The *Dutch Willow* has lately been transplanted into England. Its wood is chiefly employed for posts, rails, gates, &c.; to which purposes it is well adapted.

All the species above enumerated, delight in moist situations, excepting the *sallow*, which thrives better in a dry soil. They may be easily propagated by planting sets, cuttings, or truncheons of willows, about 6 years old, either in spring or in autumn; as they speedily take root, and, in the course of a few years, amply repay the expence and trouble bestowed on their culture. In order to ensure success, the truncheons ought previously to be steeped in soft water, for a few days: both ends must then be obliquely smoothened; the upper part be covered with soil, and exposed with its orifice towards the east. The earth should be moderately compressed with the foot, around the stem, so that it may more readily absorb moisture: in the third year, the top should be cleared, to promote the growth of the bark.—The *Yellow Willow*, however, ought never to be planted too near wells, or springs, because its spreading roots retard their course: thus, Mr. *Bordley* (in his “Essays and Notes on Husbandry.” &c.) mentions an instance, in which a spring was completely choked up, by their rapid absorption of water. On the contrary, this species may with advantage be propagated in swampy situations; as its roots tend to consolidate the ground; and after a few years, the soil will generally be converted into a firm meadow.

WILLOW-HERB.—A genus of plants consisting of 13 species, 8 being indigenous; of which the following are the principal:

1. The *Great Hairy*, or *Large-flowered Willow-herb*, or *Codlings and Cream*, is perennial; grows in moist hedges; ditches, the banks of brooks, rivers, and lakes; where it flowers in July.—The young tops of this vegetable possess a delicate odour, resembling that of scalded codlings; but which is so transitory, that after they have been gathered five minutes, their fragrance is entirely dissipated.—Horses, sheep, and goats, eat the plant; though it is not relished by cows, and is wholly rejected by hogs.—According to *Bechstein*, this herb remarkably absorbs the inflammable air generated in moist situations; so that it deserves to be cultivated in the neighbourhood of dwellings on marshes, both on account of such useful property, and its large beautiful purple flowers.

2. The *Rose-bay Willow-herb*, is also perennial, being frequent in woods and hedges; where its rose-coloured flowers appear from June to August.—This species is eaten by sheep, cows, and goats; but is refused by horses and hogs.—An infusion of the leaves produces intoxicating effects; though the suckers of the roots, when properly dressed, afford a wholesome dish.—The inhabitants of Kamtschatka brew a kind of ale from the pith of this plant, which they convert into vinegar; and the down, with which its seeds abound, has, in combination with cotton, or fur, been advantageously manufactured into stockings, and other articles of wearing apparel: this fibrous substance may also be profitably employed as a material for making paper.

WIND-FLOWER.—See *Anemone*.

WINTER-CRESSSES; or Winter Rocket.—See *Mustard* the Hedge.

WITHEN-TREE.—See *Sallow*.

WOLF'S-BANE, THE LARGE BLUE, OR MONK'S-HOOD.—Is an exotic perennial, growing wild in the mountainous parts of Switzerland and France.—The juice of this plant possesses a disagreeable smell, and an acrid taste: of the latter, however, it is in a great measure divested by inspissation. Being one of the most active vegetable poisons, when taken in large portions, it excites sickness, vomiting, diarrhoea, giddiness, delirium, fainting, cold sweats, convulsions, and death.

Dr. *Stoerk*, of Vienna, informs us, that the Wolf's-bane is a very effectual remedy in glandular swellings, the itch, amaurosis, in gouty and rheumatic pains, intermittent fevers, and in convulsions. He prescribed 10 grains of the powder to be taken at night, and in the morning; but the dose is to be gradually increased to 6 grains of the inspissated juice, twice every day. Other physicians have employed a tincture prepared of one part of the dry,



pulverized leaves of this herb, and six parts of spirit of wine; in doses.—In Britain, however, this remedy has not answered the high expectations formed of its virtues; though it doubtless is a very active, and useful medicinal plant, if duly prepared, and regularly prescribed.

A decoction of the roots of the Wolf's-bane, affords an efficacious liquor for destroying bugs:—if this root be reduced to powder, mixed with oatmeal and honey, or any other palatable vehicle, and thus exposed to rats or mice, it will corrode and inflame their intestines, so as speedily to prove a fatal repast.—The juice expressed from this plant, is occasionally poured on flesh, and thus employed as a bait to allure wolves, foxes, and other beasts of prey.

Lastly, it is remarkable, that the best antidote for the poison of the Monk's-hood, is asserted to be the root of the anthora, a species of the same genus, called healthful, or wholesome Monk's-hood.

WOOD-BINE.—See *Honey-suckle*, the Common.

WOODROOF, THE SWEET.—An indigenous perennial, growing in woods and shady places; where it flowers in the month of May.—This plant possesses an exceedingly grateful odour, that increases on being moderately dried: it has a sub-saline, and somewhat austere taste; which, together with a peculiar, fine flavour, it also imparts to vinous liquors.—According to *Linnaeus*, the smell of this herb, expels ticks, and other insects.

The sweet woodroof is supposed to attenuate viscid humours, and strengthen the bowels; to remove obstructions of the liver and biliary ducts; and was formerly esteemed a medicine of great efficacy in epilepsies and palsies.—The plant is eaten by cows, horses, sheep, and goats; having the remarkable property of increasing the milk of animals, and especially of those first mentioned.

WOOD-SAGE.—See *Wood-Germander*.

WORMWOOD, the Common.—See *Mugwort*.

WORMWOOD, THE SEA, OR SEA SOUTHERN-WOOD.—Is an indigenous perennial, growing on the sea-coast, and flowering in the month of August. In its wild state, the odour of this plant is similar to that of Camphor; but, when cultivated in gardens, it becomes less fragrant. Its virtues correspond with those of the Mugwort, or Common Wormwood though in an inferior degree.

The Sea Wormwood is frequently used as an ingredient in distilled water: when triturated with fine sugar, it is formed into a conserve.—This marine plant is eaten by horses; but refused by cows, goats, and sheep.

WOUNDWORT.—A genus of plants consisting of 22 species; 4 being indigenous; of which the following are the prin-

Principal.

1. The Marsh Woundwort.—See Clowns *Allheal*.

2. The *Hedge-nettle Woundwort*, is perennial ; grows in hedges and woods, where it flowers in the months of July and August. —The whole of this plant possesses a fetid smell ; and under its shade, toads are said to retreat for shelter. A yellow dye is obtained from its leaves and branches. It is eaten by sheep and goats ; but refused by horses, cows, and hogs.—*Bechstein* observes, that the stalks of the Hedge-nettle Woundwort, when managed in the manner similar to that pursued with hemp, afford a woolly substance, which may be spun into yarn ; and, on bleaching it, becomes remarkably white.

YARROW, THE COMMON OR MILFOIL.—An indigenous perennial, growing in meadows, pastures, and on road-sides ; blowing from June till August.—The flowers of this vegetable yield an essential oil, which possesses an aromatic odour, a bitter taste, and is similar to that of chamomile.—A decoction of its leaves with chamomile flowers is said to form a corroborant diet-drink for children who, on account of their rapid growth are unable to retain their water, during the night : but, for this purpose, from one to two pints of such preparation ought to be taken in the course of 24 hours.—*Linnaeus* observes, that the Dalecarlians have a practice of throwing the flowers and leaves of the common yarrow into beer, while in a state of fermentation ; with a view to increase its intoxicating effects.—*Bautsch*, in Germany, has usefully employed the whole herb, in the process of tanning.

The Milfoil being a creeping plant, which spreads uncommonly from its numerous seeds, it often becomes a troublesome weed, if it be once suffered to grow in fields. Nevertheless, Dr. *Anderson* recommends its culture as a proper food for cattle.—It is eaten by sheep and hogs ; but is relished neither by horses, cows, nor goats.

YELLOW-RATTLE, COXCOMB, OR PENNY-GRASS.—A native plant, growing in meadows, pastures, and woods ; blowing in the months of June and July.—This vegetable sometimes overspreads whole meadows with its yellow flowers : in a green state, it is eagerly eaten by cattle ; but, when dry, it forms a hard and tough fodder. Hence, careful farmers cut off the flowers, before the seed attains to maturity in order to prevent its propagation.

YEW-TREE, THE COMMON.—A native of Britain, and other parts of Europe, as well as of America : it grows in mountainous woods, hedges, and rocky soils ; producing its flowers in March and April, which are succeeded by bright-red, soft, oblong berries, containing a mucilaginous white juice, and arriving at perfection in September.

The yew-tree thrives most luxuriantly in a moist, loamy soil :

it may be propagated by sowing the ripe berries in autumn, in a shady bed of fresh earth, and covering them to the depth of half an inch, with similar mould : when the young plants appear, they ought to be carefully weeded, and occasionally watered in dry seasons.—In this situation, they must remain for two years ; after which they ought to be removed, in the month of October, into beds of unmanured soil, at the distance of six inches from each other, and in rows one foot asunder ; being gently watered till they have taken root. Here the plants should again continue for two years ; at the expiration of which, they must be transplanted, in autumn, into a nursery, and placed 18 inches from each other, in rows three feet apart. When the young trees have stood three or four years in the nursery, it will be advisable to set them, in September, or October, in dry ground ; and, at length, in the subsequent spring, to place them in cold, moist situations, where they are designed to remain.—The period of their growth is computed at 100 years ; and their duration in the ground, at four centuries.

Formerly, the yew-tree was cultivated, in Britain, chiefly for the manufacture of bows ; but, since these implements of war have been superseded by fire-arms, it is generally raised as an ornament to parks and plantations, on account of its leaves. This useful tree admits of being frequently pruned ; and may be made to assume any particular figure : hence the gardens of our forefathers were filled with ships, birds, quadrupeds, men, and other vegetable monsters. But such absurd fancies are gradually disappearing ; a more natural system of horticulture is making rapid progress ; and the yew is at present advantageously planted in hedges, as a fence for orchards and shrubberies, against severe winds.

The wood of this tree is hard and smooth ; beautifully veined with red streaks ; admits of a fine polish ; and is almost incorruptible : hence it is advantageously employed by turners and cabinet-makers, for manufacturing spoons, cups, as well as tables, chairs, and various other articles. It is also usefully converted into cogs for mill-wheels, axle-trees, flood-gates for fish ponds ; and may perhaps be effectually substituted for box ; so that considerable sums of money might be annually saved, which are now exported to the Levant, in order to supply engravers, and other artists, with that wood.

The red berries of the yew-tree have a sweetish taste, and abound with mucilage : they are not only devoured by hogs and birds, without any pernicious effects resulting from them, but are also frequently eaten with impunity by children ; though, in some persons, this fruit is apt to produce noxious effects, especially if the stones be swallowed. We are, nevertheless, persuaded, that a very copious and strong spirit may be easily ex-



extracted from these berries, by distillation; and that their conversion to this purpose might annually save many thousand bushels of grain, which are unnecessarily wasted in the still, while the abundant vegetable productions of the woods, hedges, and commons, are suffered to decay, or are heedlessly left to become a prey to wild birds, and other animals.

The leaves of the yew-tree are reputed to be poisonous to the human species, as well as to cattle of every description. Attempts, however, have lately been made, to employ them for feeding horses, in times of scarcity; and if our account be accurate, we have read in some recent publication, that such leaves were given to those animals with perfect safety, when cut together with hay or straw, so as to use, at first, only the tenth or twentieth part of this foliage, and gradually to increase the proportion of the latter, and to reduce that of the former, to one-half, or even a smaller quantity. Thus, it appears to be perfectly consistent with reason and analogy, that the oily and astringent principle of the yew-tree leaves may be corrected, by sheathing it with a large portion of balsamic hay, and absorbent straw; yet we cannot, on this occasion, speak from positive experience. —According to agricultural writers, the loppings and bark of this tree are equally pernicious to cattle, especially when in a half-dried state; several sprigs having been found in the stomachs of dead animals, entire, or undigested. —It is, however, an erroneous supposition, which still prevails in some country places, that the very shade of its foliage is hurtful to animal life.

On the other hand, *Bechstein* informs us, that the wood of the yew-tree, when reduced to powder by a file, mixed with paste, and baked in an oven, has been highly extolled in Germany, as a sovereign remedy for the bite of a mad dog: it is, therefore, taken in doses of half an ounce.

*Dambourney* observes, that a decoction of yew-tree berries imparts a handsome chamois-dye to wool previously immersed in a weak solution of bismuth. On boiling the red root of this tree, together with the bark of the common birch-tree, he obtained a beautiful cinnamon colour, with a mordore tint; but the wool was first boiled for a considerable time in a solution of tin: and, by adding alum, the dye assumed an aurora, or bright-red colour.

**ZEDOARY.**—A genus of plants, consisting of two species; namely: 1. The Common Galangal, or Long Zedoary; which has long, thick, tuberous roots, and produces single white flowers, with purple bases; and, 2. The Round Zedoary, has thick, round roots, presenting whitish flowers, that are frequently tinged with green, yellow, red, and purple. Both species are natives of Siam: they may be raised in hot-houses, by dividing the roots in the spring, and planting them in pots of rich, light mould, where they should be copiously watered during the summer,

but less frequently in the winter.

The roots of the Zedoary are imported in oblong pieces, about the thickness of a finger ; or in round masses, generally one inch in diameter ; pay a duty of 6½d. per lb. They possess an agreeable fragrance, but a bitterish aromatic taste ; both of which may be imparted to water.

The Zedoary is a warm stomachic, and has been recommended in dyspeptic cases, for relieving flatulency, and invigorating the nervous system. Such root may be advantageously used by artists, as an excellent yellow colour : and it may likewise be employed in painting with water-colours. For this purpose, it is prepared in the following manner : Boil 1 oz. of the root in a quart of water, till the fluid have sufficiently imbibed the colouring matter, for communicating a yellow tinge to paper : it is then to be filtered through a linen cloth. The decoction may be evaporated or dried in shells ; after which, it may again be diluted, and will easily spread with the pencil.

---

*Parker, Printer.*

GENERAL INDEX.

# GENERAL INDEX

## OF REFERENCE

TO THE VARIOUS FACTS DISPERSED THROUGH THE WORK.

### A.

AGUE, relieved by Sage; avens; bistort; Germander; Holly; Orache; Silver-weed; Sloe-tree; Stone-crop; Willow-bark, &c.

Ale, to clarify, see Common Burnet Saxifrage—to improve its flavour, see Fern.

Alkal, vegetable, may be obtained from Horse-chesnuts, Beech-tree, Common Broom, Glass-wort, Grass-wrack, Arrow-grass, Goose-foot, Purslane, Sea-holly, Stone-crop, Teasel, Artichoke, Thistle, Fern, Mugwort, &c.

Alum, substitute for, see Club-moss.

Antiscorbutics, see Cloud-berry, Dame-wort, Radish, Fir-tree, Pepperwort, Scurvy-grass, &c.

Antiseptics, see Bilberry, Bistort Buckthorn, Carrots, Cherries, Cucumbers.

Antispasmodics, see Goose-foot.

Aperients, see Anemone, Bryony, Burdock, Goose-grass; Madder, Radish, Strawberry, &c.

Artichoke, substitute for, see Milk-thistle.

Asparagus, substitutes for, see Black Bryony; Burdock; Goat's-beard; Hop; Swallow-wort.

Asthma, remedies for, see Daisy; Dame-wort; Garlic; Horehound; Marsh-mallow; Mastic; Orache.

Astringents, see Cornel-tree; Cudweed; Cypress; Daisy; Service-tree; Sloe-tree.

### B.

Barilla, vegetables from which it may be procured, see Salt-wort; Samphire, the Shrubby; Arrow-grass; Goose-foot; Grass-orache; Grass-wrack; Orpine, the Common; Artichoke; Eryngo; Sea-plantain; Teasel.

Bark (Peruvian,) useful in the Ague;—a substitute for, see Avens; Willow; Germander; Nettle.

Baskets, plants which may be manufactured into, see Birch-tree; Spanish Broom; Osier; Willow, &c.

Beer, may be brewed from Buck-bean, without Malt, how to clarify, see Avens; Anise; Common Burnet-Saxifrage.

Bees, vegetables frequented by them, see Balm; Bugloss; Bell-flower; Bind-weed; Blue-bottle; Briar; Spanish Broom; Buck-wheat, the Climbing; Butter-cup; Borage; Lime-tree; Lupine; Self-heal; Sun-flower; Thyme; Vetch;—advantage-



ous food for, see Hawk-weed; Heath;—how to expel from their hives, see Mugwort.

Bite of a Mad-dog, remedies for, see Eschallot; Liverwort; Pimpernel.

Black dyes, substances which yield, see Hemp-Agrimony; Ash; Bane-berries; Bugle; Burnet the Great; Christopher the Herb; Cinnamon; Liverwort; Loose-strife; Scull-cap; Oak.

Blisters, substances used for, see Butter-cup; Mustard-seed; Horse-radish; Crow-foot; Spurge-Olive.

Blue dyes, vegetables which yield, see Ash; Blood-wort; Poppy, the Horned.

Blue Pigments, plants which afford, see Blue-bottle.

Bolsters, materials for, see Cat's-tail.

Brandy, vegetables from which it may be procured, see Carrots; Plum-tree.

Bread, substitutes for, see Acorns; All-heal; Arrowhead; Asphodel; Bean; Beech-nut; Bistort, the Small; Brome-grass; Bryony, the White; Buck-bean; Buck-wheat; Canary-grass; Clover; Club-rush, the Salt-marsh; Corn-flag, the Common; Couch-grass; Dog's-tail-grass, the Rough; Dropwort, the Common; Fern; Flote-Fescue-grass; Goose-foot, the White; Gromwell; Guinea Corn; Hay; Knot-grass; Lentil; Lime-grass; Lily, the Yellow and White Water; Marsh-Marigold; Mat-weed; Meadow-sweet; Millet; Prase; Pile-wort; Reed, the Common; Rocket; Seg, the Sea; Silver-weed; Solomon's Seal; Sorrel, the Common; Spinach; Spurrey; Star of Bethlehem; Strawberry; Succory; Turnip-rooted-Cabbage; Vetch; Wake-Robin; Water Caltrops; Wheat-grass.

Breath, fetid, relief for, see Cherry; Fasel-nut.

Brown dyes, vegetables which yield, see Asarabacca; Avena; Purging Buck-thorn; Buck-thorn, the Sea; Buck-wheat; Comfrey; Dog-rose; Elder; Hops; Chesnut; Liverwort.

Bruises for, see Madder.

Bugs, to destroy, see Flower-de-Luce;—preservative against, see Christopher the Herb.

Butter, substitutes for, see Bay-tree;—for tinging, see Marsh-Marigold.

Butterflies, plants most frequented by, see Soap-wort.

### C.

Candles, useful materials for making, see Gale.

Capers, substitute for, see Broom.

Carminatives, see Coriander; Fennel.

Caraplasms, substances proper for, see Hyssop; Mustard; Hemlock; Lily; Marsh-Mallow.

Carhartics, see Buckthorn; Rhubarb.

Cattle, indurated liver of, cured by Dog's-grass;—how to

prevent from being hoven, see Clover;—remedy for the Flux in,  
see Herb-Robert.

Cement, see Birch-tree; Garlic.

Cephalics, see Rosemary.

Chairs, material for stuffing, see Bull-rush.

Charcoal, best materials for, see Beech-tree; Hazel-nut-tree.

Cheese, to preserve, see Sloe-tree.

Citron dyes; see Chamomile; Cicely; Goose-foot; Needle-  
Furze.

Cloth, materials for, see Broom; Hop; Saw-wort.

Coffee, to improve, see Succory;—substitutes for, see Acorns;

Beech-nut; Seeds of the Common Broom; Chesnut.

Colic, remedies for, see Clary; Holly.

Consumption, medicines for, see Hemlock; Chickweed; Colt's-  
foot; Cucumber; Daisy; Fox-glove; Liverwort.

Copses, how to strengthen, see Hazel-nut-tree.

Corroborants, see Angelica.

Cosmetics, see Teasel; Wake-Robin; Fumitory.

Costiveness, remedies for, see Beet.

Cough, substances which relieve, see Dame-wort; Fir-tree;  
Ground-ivy; Hound's-Tongue.

Counterpanes, material for making, see Poplar.

Cows, food for, see Common Burnet Saxifrage; Burnet, the  
Upland; Cow-parsnep; Cow-wheat; Cress; Nettle; Dodder;  
Dyer's Green weed; Eye-bright; Fescue-grass; Feverfew;  
Fools-parsley; Fox-tail-grass; Furze; Gold-of-Pleasure; Goos-  
foot; Goose-grass; Gout-weed; Hop; John's-wort; Lentil;  
Meadow-grass; Medick; Melic-grass; Milk-vetch; Oat; Par-  
snep; Pea; Potatoes; Quaking-grass; Rye; Sneeze-wort; Sow-  
thistle; Speed-well; Spindle-tree; Spurry; Wood-roof.

Cradles, materials for, see Birch-tree; Osier; Willow.

Crickets, to destroy, see Lily, the Water.

Crimson Dye, see Dog's-grass; Goose-grass.

Curl; on the causes and cure of, see Potatoes.

Cautaneous disorders, remedies for, see Birthwort; Dock;  
Elm-tree.

## D.

Deobstruents, see Bryony; Penny-royal.

Detergents, see Fir-tree; Madder.

Diaphoretics, see Burdock; Dame-wort; Hartshorn; Night-  
shade.

Diarrhœas, remedies for, see Berberries; Cypress; Hartshorn;  
Opium; Rhubarb; Shepherd's-purse.

Dish, a wholesome vegetable one, to prepare, see Tulip.

Diuretics, see Burdock; Fennel; Fumitory; Nettle; Tobac-  
coplant.

Dodder, to extirpate, see Flax.

Dropsy, remedies for, see Bay-tree ; Broom ; Bryony ; Dandelion ; Elni-tree ; Fox-glove ; Garlic ; Milk-wort ; Orache.

Dyeing, see Bramble ; Lime-tree ; Tutsan.

Dyspepsy, remedy for ; see Zedoary.

Dysenteries, relieved by Cherries ; Dock ; Hound's-Tongue ; Mastich ; Opium ; Quince-tree ; Service-tree.

## E.

Emetics, see Club-moss ; Fox-glove.

Epidemic Diseases, preservative against, see Flag.

Epilepsy, remedies for, see Dog's Violet ; Mushroom ; Nightshade, the Deadly.

Eyes, affections of, how relieved, see Anemone ; Buckthorn.

## F.

Farcy, see Asarabacca.

Fevers, remedies for, see Barley ; Butter-burr ; Cherry ; Cornel-tree ; Hop

Flatulency, remedies for, see Angelica.

Fodder, see Angelica ; Bent-grass ; Bird's-foot, Bistort ; Soft Brome-grass ; Buck-wheat ; Burnet ; Butter-burr ; Cabbage ; Canary-grass ; Kale ; Cinque-foil ; Parsnep ; Carrot ; Potatoe.

Frogs, how to extirpate, see Fumetory.

Fomentations, see Myrtle.

Fuel, see Sun-flower.

Fumigation, see Sulphur-wort.

## G.

Galls, their uses, see Oak.

Gangrene, see Dame-wort, Germander, &c.

Gargles, see Cinquefoil.

Giddiness, in sheep, remedy for, see Pimpernal.

Ginger, see Milk-weed.

Glass, see Grass-wrack.

Gloves, materials for, see Larch-tree, Poplar, &c.

Goats, food for, see Brome-grass ; Purging Buckthorn ; Carline ; Chamomile ; Cheese-renet ; Cherry ; Cinquefoil ; Colt's-foot ; Columbine ; Corn-cockle ; Current-tree ; Dandelion ; Dyer's Greenweed ; Fescue-grass ; Feverfew ; Fool's Parsley ; Furze ; Germander ; Gold-of-Pleasure ; Goose-foot ; Goose-grass ; Goutweed ; Groundsel ; Hazel-nut-tree ; Juniper ; Knawell ; Ladies'-Mantle ; Ladies'-Smock ; Lark-spur ; Lily ; Lovage ; Lousewort ; Lugwort ; Mare's-tail ; Marjoram ; Marshlocks ; Matweed ; Meadow-grass ; Medick ; Melic-grass ; Motherwort ; Nightshade ; Oat, Ox-eye ; Primrose ; Quaking-grass ; Scabious the Field and Small ; Sloe-tree ; Snakeweed ; Sneezewort ; Solomon's Seal ; Sow-thistle ; Speed-well ; Spindle-tree ; Spurrey ; Starwort ; Thrift ; Willow-herb ; Wood-roof, &c.

Gold dyes, obtained from the Angelica, Artichoke, Buck-wheat, Fig-tree, &c.



Gout, see Germander ; Ground-pine ; Horehound.

Gravel, see Garlic, Onion, &c.

Grease, in horses, to remove, see Burnet, the Upland.

Green-dyes, vegetables from which they are prepared, see Anemone ; Asarabacca ; Bugloss ; Bird-cherry ; Smooth Rye Biome-grass ; Purging Buckthorn ; Buck-wheat ; Bell-flower ; Cheese-Rennet ; Clover ; Lily Liverwort ; Privet ; Reed ; Tansy ; Burnet the Great, &c.

Green Pigments, produced from Anemone ; Bell-flower ; Flour-de-luce, &c.

Greens, substitutes for, see Dead-nettle ; Nettle ; Nipple-wort, &c.

Gum, a substitute for Calico Printers Gum, See Liverworts.

Gums, how to treat when ulcerated, see Dock.

Gutta serena, relieved by Anemone.

## H.

Hair, to restore on the head, see Box-tree ; Butter-wort ; Myrtle, &c.

Hats, see Poplar, &c.

Hay, see Butter-cup.

Hedges, fence for, see Furze ; Holy ; Horn-beam-tree, &c.

Hedge-rows, how to make, see Oak.

Hemp, substitutes for, see Sun-flower ; Tree-mallow, &c.

Hoarseness, remedies for, see Cabbage.

Hogs, vegetables for fattening them, see Artichokes ; Beech-nut ; Buck-wheat ; Butter-wort ; Chickweed ; Crow-foot ; Dandelion ; Dodder ; Duck's-meat ; Earth-nuts ; Fern ; Fescue-grass ; Feverfew ; Fool's-Parsley ; Groundsel ; Hawthorn ; Hop ; Meadowsweet ; Parsnep the Water ; Pea ; Potatoes ; Sneezewort ; Sow-thistle ; Timothy-grass ; Yarrow, &c.

Hoofs of Horses fomentation for, see Scabious.

Hooping-cough, relieved by Penny-royal.

Hops, substitutes for, see Asparagus ; Broom ; Buck-bean ; Clary ; Germander ; Mugwort ; Tansy, &c.

Horses, food for, see Chamomile ; Corn-cockle ; Cornel-tree ; Cow-parsnep ; Currant-tree ; Dyer's Green-weed ; Eyc-brigit ; Fescue-grass ; Feverfew ; Furze ; Gold-of-Pleasure ; Goose-foot ; Goose-grass ; Hazel-nut-tree ; Hop ; Ladies' Mantle ; Lentils ; Lovage ; Matweed ; Meadow-grass ; Medic ; Melic Grass ; Mother-wort ; Osier ; Ox-eye ; Parsnep ; Pea ; Potatoes ; Rupture-wort ; Rye ; Sloe-tree ; Snakeweed ; Sneezewort ; Speedwell ; Spurry ; Star-wort ; Thrift ; Timothy Grass ; Willow-Herb ; Woodroof ; Worm-wood.

Hot-beds, substance for making, see Oak.

Hunger, to prevent, see Pea, the Heath.

Hypochondrical complaints, relieved by Balm ; Orache.

Hysterics, remedies for, see Angelica ; Cheese-Rennet ; Clary.

## I

Janndice relieved by Duck's-meat ; Ground-pine ; Nettle ; Ox-eye ; Strawberry.

Jelly, a nutritious one, how to prepare, see Poplar ; Rice.

Indigo, substitutes for, see Common Burnet Saxifrage ; Trefoil.

Inflammation, remedies for, see Duck's-meat ; House-leek.

Ink, black, vegetables which produce, see Blue-bottle ;—Green, see Anemone.

Insects, best means of destroying, see Apple-tree ; Fir-tree ; Oat.

Ipecacuanha, substitutes for, see Asarabacca ; Herb-Paris.

Iron-moulds, to remove, see Sorrel.

Itch, ointment for, see Dock ; Elecampane.

## L.

Lake, see Madder.

Laxatives, see Daffodil ; Dock ; Flax ; Fumitory ; Night-shade ; Peach-tree ; Rose, the Damask ; Violet.

Lemons, a substitute for, see Berberries.

Leprosy, remedy for, see Elm-tree.

Lice, to destroy, see Butterwort.

Lozenges, see Mint.

## M.

Mats, material for making, see Bull-rush.

Mattresses, a valuable material for stuffing, see Moss.

Mice, to destroy in Granaries, see Knee-holly ; Mullein.

Milk, see Burnet, the Upland ; Cabbage ; useful for preserving food, see Flesh-meat.

Millet, substitute for, see Blite.

Moles, to disperse, see Garlic.

Mordore-dye see Bistort the Great.

Mushrooms, may be raised from the Poplar.

## N.

Nervous diseases, remedies for, see Balm ; Blisters ; Celery ; Sage.

Nephritic disorders, relief for, see Birch ; Cypher-grass.

## O.

Obstructions, see Madder.

Oil, afforded by the Angelica ; Bay-tree ; Beech-mast ; Celery ; Charlock ; Cherry ; Gale ; Lilac ; Privet ; Rape ; Sun-flower ; Bladder-nut-tree ; Cornel-tree ; Nettle ; Nettle-Hemp.

Opium, substitutes for, see Hemp ; Herb-Paris.

Orange, colour, see Bay-tree ; Rhubarb ; Liverwort.

## P.

Packing, material for, see Moss.

Palsy, see Bay-trees ; Fir-tree ; Rosemary.

Paper, materials for, see Bull-rush ; Burdock ; Cotton ; Cypher-grass ; Nettle ; Traveller's-Joy ; Mallow ; Tree-Mallow ;

Willow ; Broom.

Paste, substitute for, see Asphodel.

Peach-colour dye, see Rose.

Pulegm, to attenuate, see Birth-wort.

Pica, or longing, remedy for, see Sea-wrack.

Pickles, new, see Buck-bean ; Caraway.

Pigeons, food for, see Vetch.

Pine-tree, the Scotch, its uses, and method of culture, see Fir.

Plasters, see Fir-tree ; Olive-tree.

Pleurisy, medicine for, see Milk-wort.

Posts, best substance for making, Larch-tree, &c.

Poultry, vegetables, &c. which fatten, see Buck-wheat ;

Duck's-meat ; Millet ; Nettle.

Pounce, see Juniper.

Pruning, see Apple-tree.

Puddings, ingredient for, see Fescue-grass.

Purgatives, see Bindweed ; Buck-thorn ; Fox-glove ; Liver-wort ; Plum-tree ; Scammony ; Stone-crop.

Purple-dye, see Heath ; Cornel-tree ;—pigments, vegetables which afford, see Bilberry, &c.

#### Q.

Quinsy, remedies for, see Anise ; Cudweed.

#### R.

Rabbits, food for, see Milk-Thistle.

Rats, how to disperse, see Garlic ; Valerian.

Red Dyes, vegetables which afford, see Birch-tree ; Blood-wort ; Cheese-rennet ; Goose-grass ; Rhubarb ; Sloe-tree ; Madder ; Marjoram.

Red-water, in Sheep, to remove, see Parsley.

Rennet, substitutes for, see Butterwort ; Cheese-rennet

Resin, see Poplar.

Rheumatism, see Bryony ; Dock ; Fir-tree ; Flax ; Mustard.

Rice, substitute for, see Millet.

Rickets, remedies for, see Madder.

Roofs, fire-proof, how to make, see Reed.

Rope, materials for, see Birch-tree

Rot, in sheep, remedies for, see Buck-bean ; Parsly ; &c.

#### S.

Salad, vegetables which may be eaten as, see Avens ; Bell-flower ; Broom-lime ; Burdock ; Burnet, the Upland ; Lung-wort.—improvement in, see Borage ; Ox-eye.

Salt, of Lemons, substitute for, Sorrel ;—springs, indication of, see Starwort.

Saponaceous Plants, which may be substituted for soap, see Burdock ; Horse-chesnut ; Orache ; Soap-wort ; Wake-Robin.

Sassafras, its use in brewing and distilling, see Bay-tree.

Scab, in Sheep, see Dock ; Elecampane ; Parsley.



- Scald-head, remedy for, see Elecampane.  
 Scarlet Dye, see Liverwort.  
 Sciatica, see Rue.  
 Scouring, in cattle, see Calf.  
 Scurvy, remedies for, see Agrimony; Angelica; Anise;  
 Cheese-rennet; Colt's-foot; Garlic; Goose-grass.  
 Sea, to prevent its encroachments, see Limegrass.  
 Secretions, to promote, see Savin; Scurvy-grass; Thistle.  
 Sheep, food for, see Arrow-grass; Bell-flower; Bird-cherry;  
 Bistort; Buckthorn; Burnet; Catchweed; Catmint; Cheese-  
 rennet; Cherry; Christopher, the Herb; Cinquefoil; Colt's-foot;  
 Corn-cockle; Cornel-tree; Corn-salad; Cow-wheat; Cress;  
 Dodder; Dog's-tail-grass; Dropwort; Dyer's-green-weed;  
 Eye-bright; Fescue-grass; Feverfew; Furze; Germander;  
 Gold-of-Pleasure; Goose-foot; Goose-grass; Gout-weed; Hop;  
 Horse-beans; House-leek; John's-wort; Juniper; Ivy; Kna-  
 well; Ladies' Mantle; Ladies' Smock; Lark-spur; Lentil;  
 Lily; Lovage; Lungwort; Marjoram; Meadow-grass; Medick;  
 Motherwort; Nightshade; Oat; Ox-Eye; Parsley; Parsnep;  
 Pea; Plantain the Ribwort; Primrose; Quaking-grass; Rupture-  
 wort; Rye; Safflower; Salt-wort; Scabious, the field, and small;  
 Sloe-tree; Snake-weed; Sneezewort; Solomon's-Seal; Sow-  
 thistle; Speedwell; Spindle-tree; Spurrey; Star-wort; Wood-  
 roof, Yarrow.  
 Silk-worms, food for, see Cowslip; Elm-tree.  
 Snut, how to cure, see Barley.  
 Soporifics; see Dog's-Mercury.  
 Sore-throat, remedies for, see Elder-tree.  
 Soups, ingredient for, Fescue-grass.  
 Spanish-flies, substitutes for, see Butter-cup; Crow-foot.  
 Spasmodics, see Poppy.  
 Spinach, substitutes for, see Blight; Daisy.  
 Spirits, afforded by the fruit of the Dog-rose; Hawthorn;  
 Quicken-tree, &c.  
 Splinters to promote the extraction of, see Needle, the Shep-  
 herd's  
 Starch, plants which afford, see Arrow-head; Bryony, the  
 White; Burdock; Comfrey; Pile-wort; Snow-drop; Solomon's-  
 seal; Wake-robin, &c.  
 Sternutatory, see Mustard, the hedge.  
 Stomachic, see Mugwort.  
 Styrpics, see Bistort; Puff-ball; Shepherd's-Purse.  
 Sudorifics, see Diaphoretics.  
 Surfeit in horses, see Parsley.  
 Swellings, remedies for, see Fenugreek; Goose-grass; Holly;  
 Night-shade, the Deadly; Ox-eye.

Tanning, substitutes for Oak-bark in, see Angelica ; Avens ; Berberries ; Birch-tree ; Bistort, the Great ; Briar ; Broom ; Burnet the Great ; Clary ; Dock ; Feverfew ; Horehound the White ; Larch-tree ; Lavender-Thrift ; Loose-strife ; Myrtle ; Silver-weed ; Sloe-tree ; Tomentil ; Trefoil ; Yarrow.

Tapioca, substitute for, see Orchis.

Teeth, purifier of, see Dock.

Thatch, how to render Fire-proof, see Moss.

Timber, to preserve from decay, see Beech-tree.

Tobacco, substitutes for, see Buck-bean ; Cudweed ; Milk-weed ; Pea, the heath ;—to improve, see Larkspur.

Tonics, see Buckthorn, &c.

Tooth-ach, relieved, Anemone ; Marjoram ; Thyme, &c.

Turf, guide in digging for, see Sundew.

#### U. V.

Veneering, materials for, see Broom, the Common ; Traveller's-Joy.

Vermifuge, substances proper for, see Fern ; Gamboge ; Liverwort, the green-ground ; Mulberry-tree ; Sugar ; Spurge-laurel ; Tansy ; Timothy-grass.

Vermin, in Cattle, remedy for, see Meadow Saffron.

Vigogne dye, see Bell-flower

Vinegar, vegetables whence it may be prepared, see Bramble ; Quicken-tree.

Violet dye, see Rose.

Vulneraries, see Anemone ; Daisy ; Leadwort.

Ulcers, remedies for, see Anemone ; Birth-wort ; Buck-thorn ; Night-shade, the Deadly ; Sorrel ;—of the throat, remedies for, see Mustard, the Hedge.

#### W.

Warts, to destroy, see Poppy, the Horned.

Wicks for Candles, see Cotton-grass.

Wine, to clarify, see Common Burnet Saxifrage ;—to improve its flavour, see Burnet, the Upland ;—Vegetables which yield, see Alder-tree ; Birch-tree ; Bird-cherry ; Bramble ; Bil-berries ; Sycamore-tree ; Quince-tree, &c.

Wounds, of Horses ;—remedies for, Poplar ; Fir-tree ; Needle, the Common Shepherd's ; Poppy.

Worms, to destroy, see Box ; Loose-strife ; Mustard, the Hedge, &c.

#### Y.

Yarn, materials for, see Duck's-meat ; Woundwort.

Yaws, see Limes.

Yellow-dyes, substances which yield, see Agrimony, the Common ; Agrimony ; the Hemp ; Balsamine ; Berberries ; Birch-tree ; Alder Buckthorn ; Purging Buckthorn ; Buck-wheat ; Burdock, the Lesser ; Chamomile ; Crab-tree ; Feverfew ; Furze ; Hustle ; Gale ; Golden-Rod ; Herb-Robert ; Horn-beam ; John'-worts ; Marigold ; Moss ; Nettle ; Plum-tree ; Poplar ; Ragwort.

*FINIS.*

JUST PUBLISHED,

*In 9 Nos. Six-pence each, or Five-Shillings, in extra Boards,*

AND SOLD BY

R. PARKER, BLACKBURN;

ALSO,

B. CROSBY, and LACKINGTON, & Co. LONDON.

TOPHAM'S

Treatise on the Diseases of CATTLE;

CONTAINING

416 PAGES, IN 12mo. ON FINE PAPER;

WHEREIN the Disorders are orderly described, and the Symptoms of each Disease obviously laid down; with a complete number of MEDICINES for every stage and symptom of the same.

To which is annexed, an *Essay* on the Diseases incident to CALVES, and their Curative indications.

---

Blackburn:

Printed by R. PARKER, Stationer and Book-seller,

MARKET-PLACE





